

## SMART BAREILLY TOUCHING NEW HORIZONS

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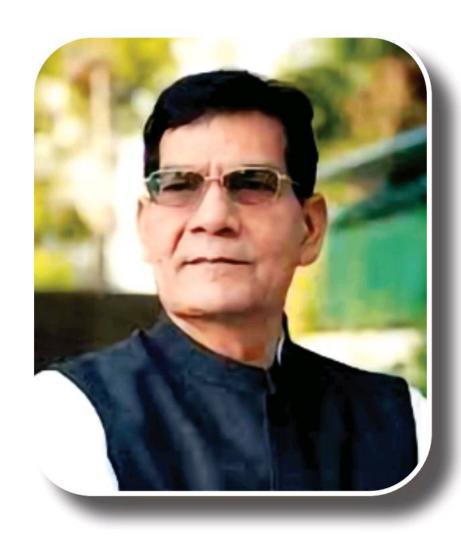
#### ए. के. शर्मा <sub>मंत्री</sub>

नगर विकास, शहरी समग्र विकास, नगरीय रोजगार एवं गरीबी उन्मूलन, ऊर्जा एवं अतिरिक्त ऊर्जा स्रोत विभाग



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देश के 100 शहरों को स्मार्ट शहर में परिवर्तित करने हेतु माननीय प्रधानमंत्री जी के कुशल नेतृत्व एवं मार्गदर्शन में स्मार्ट सिटी योजना प्रारम्भ की गयी, जिसमें उत्तर प्रदेश के बरेली सिहत 10 शहरों को चयनित किया गया। मुझे यह जानकर अत्यंत हर्ष हो रहा है कि बरेली स्मार्ट सिटी द्वारा भारत और राज्य सरकार से स्मार्ट सिटी योजना के अन्तर्गत प्राप्त होने वाली सम्पूर्ण धनराशि को प्राप्त कर लिया गया है तथा अधिकांश परियोजनओं को भी गुणवत्तापूर्वक पूर्ण कर लिया गया है।

बरेली स्मार्ट सिटी के द्वारा सार्वजनिक पार्कों, स्मार्ट सड़कों, बरेली हाट जैसी आधारभूत संरचनाओं के कार्यों के साथ ही स्मार्ट क्लासेस, स्मार्ट टायलेट, स्मार्ट स्ट्रीट लाइटिंग, स्टार्ट—अप को बढ़ावा देने के लिए इनक्यूबेशन सेन्टर की स्थापना की गयी है। साथ ही साथ इन सभी सुविधाओं को नियंत्रित करने और मॉनीटरिंग करने के लिए इंटीग्रेटेड कमांड एंड कंट्रोल सेंटर की स्थापना की गयी हैं जहां से पूरे शहर की सुविधाओं को एक ही स्थान पर जोड़ा गया है।

बरेली स्मार्ट सिटी द्वारा अपनी परियोजनाओं के संबंध में काफी टेबल बुक प्रकाशित की जा रही है, जो इन सभी परियोजनाओं के संबंध में एक ही स्थान पर फोटोग्राफ के साथ सूचनाएं प्रदान करेगी। बरेली स्मार्ट सिटी द्वारा अपनी परियोजनाओं के प्रचार—प्रसार के लिए प्रकाशित की जा रही काफी टेबल बुक के लिए मेरी ओर से हार्दिक बधाई एवं शुभकामनाएं।

(ए. के. शमी)

#### Amrit Abhijat Principal Secretary



D.O.Letter no.- /P.S.U.D./ 2022

Urban Development, Urban Employment &
Poverty Alleviation Program Dept.,
Government Of Uttar Pradesh.

Lucknow: Date.

2022

#### **Foreword**



Welcome to Bareilly, the Smart City, where ancient whispers meet modern marvels. Known for its Zari Zardozi and Bamboo work, Bareilly boasts a unique fusion of cultural richness and craftsmanship. Renowned for its diverse population, the city serves as a melting pot of various ethnicities, languages, and traditions, fostering a unique social tapestry.

The city has completed journey of 5+ years under the Smart Cities Mission since its selection in 2018. The noteworthy projects that have significantly impacted the lives of its citizens include Urban Haat, aimed at promoting Zari-Zardozi at the National and International level and subsequently boasting the city economy. Other notable projects are She Lounge; Mechanised Multilevel Car Parking; Smart Road; Smart Classes; Incubation Centre; Musical Fountain at Gandhi Udyan, etc.

Projects undertaken by Bareilly Smart City Ltd. seamlessly blend its rich cultural heritage with the latest advancements. These initiatives have not only elevated the standard and quality of life of citizens but have also acted as catalysts for the overall development of the city and its neighbouring areas. From its iconic landmarks to the vibrant pulse of its markets, every page of this Coffee Table Book unfolds the city's transition into a modern hub while preserving the essence of its past.

I congratulate the officials and all the workers of Bareilly Smart City Ltd. for executing these projects with the utmost zeal, quality and in a time bound manner. My best regards to the entire team for the successful publication of this Coffee table book. I wish them a bright future ahead for a blissful Bareilly.

Happy Reading!!!

Amult Abhijat)

## Saumya Agarwal I.A.S. Commissioner



D.O.No.

Date:

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#### Message

"The development of a smart city involves integrating various technologies, data-driven solutions, and innovative urban planning strategies to enhance the quality of life for its residents, improve sustainability, and optimize resource usage. Bareilly Smart City has laid the foundation for a smarter city that offers a superior life to its residents. The improvements made by Bareilly Smart City will completely transform the way the city operates, paving the way for a golden era of development and progress."

(Saumya Agarwal)

Ravindra Kumar
I.A.S.
District Magistrate
Bareilly



#### **Message**



It's great to see how Bareilly Smart City has taken up the mission of beautifying the city and making it more technologically smart and accessible to the residents of the city.

I believe that the current wave of development will usher in a new wave of development and prosperity for the city. The current projects will not only contribute to the beautification of the city but also bridge the gap between essential government services and the people who need them. From upgrading parks to libraries and flyovers, we're leaving no stone unturned to build a better life for the residents of Bareilly.

(Ravindra Kumar)

DO.No./

/ST/BSCL/2023-24

Nidhi Gupta Vats I.A.S. C.E.O.



Bareilly Smart City Ltd. Bareilly

Dated:-										
Datou.			•				•			



#### Message

"The creation of a smarter Bareilly requires defining the vision and goals of the smart city project, while considering factors like environmental sustainability, quality of life, economic growth, and efficient resource utilization. We had to involve stakeholders, including government bodies, the private sector, citizens, and experts, to collaboratively develop a comprehensive smart city plan. The initiative further involves the constant monitoring of implemented technologies and strategies and evaluating their performance. We use the insights gained to refine and optimize the smart city initiatives over time. Remember that the development of a smart city is an ongoing process that requires collaboration, adaptability, and a strong commitment to sustainable and inclusive growth.

(Nidhi Gupta Vats)

#### PREFACE

areilly was selected for the Smart Cities project in 2018, and finished 95th in its first year. Since then, major infrastructural initiatives, including the rehabilitation and beautification of Sanjay Community Hall Pond, smart toilets, multi-media laser shows, major roadways, and light and sound shows, have helped Bareilly rise in the rankings.

Located along Ramganga, Bareilly lies in the Rohilkhand region and is the fourth city in Uttar Pradesh to have a CNG station. Apart from being the seventh largest metropolis in Western Uttar Pradesh, Bareilly is also a vibrant urban centre with a mixture of traditional and modern values. The mission of Bareilly as a smart city focuses on sustainable and inclusive development and the idea is to look at improving facilities in the compact areas. This requires significant enhancements to core infrastructure and providing a decent quality of life to its citizens.

#### UNDERTAKING AREA-BASED DEVELOPMENT

Area-based development refers to activities that aim to create a new layout with improved infrastructure that can be co-created through redevelopment, which will result in the replacement of the current structures. This comprises the illumination of dark and public places with high mast lights, renovation of the Ghanta Ghar clock tower, along with the development of Moti Park and the parking area.

A mirror maze, a foot overbridge at the district hospital, a Skywalk in Patel Chowk, and an indoor sports complex were also constructed. Internal roads, underground wiring, Bareilly Haat, commercial complex, incubation centre, open gyms, etc have been developed or are at the cusp of being fully-developed; and all this will see Bareilly emerging as a complete city.

Apart from this, the renovation of the Akshar Vihar Lake area, the outdoor shooting range at the rifle club, a two-lane elevated corridor, and the heritage light and sound show also come under the smart city development of Bareilly.

#### **PAN-CITY DEVELOPMENT**

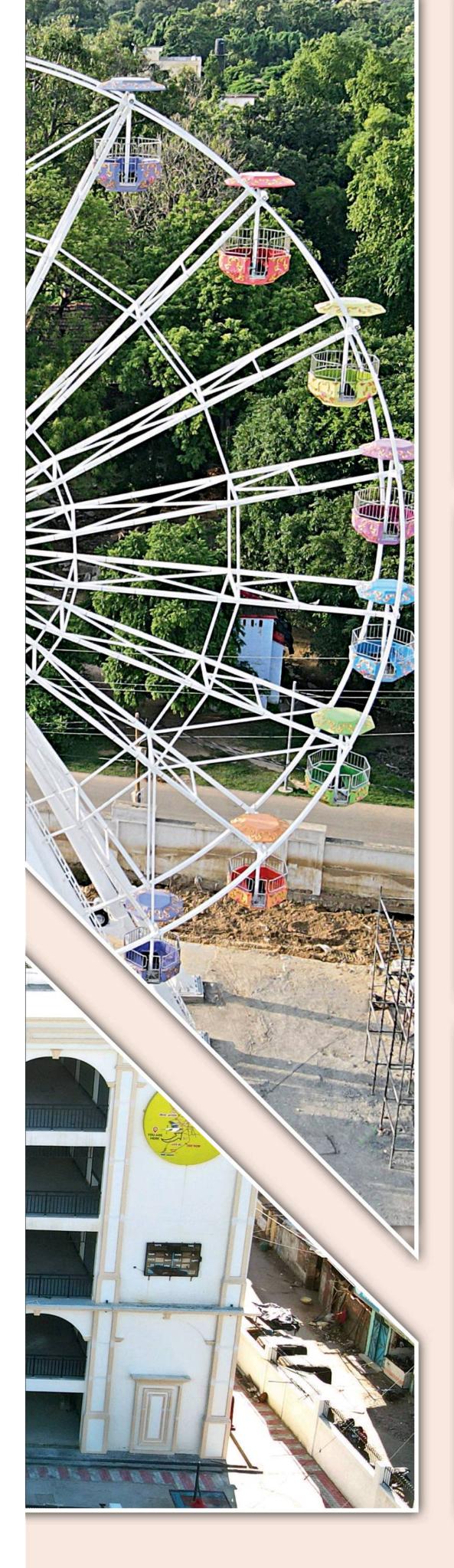
Integrated Command Control Centre (ICCC), is in the process of applying smart solutions to improve the infrastructure of the entire city. This entails the utilisation of technology towards the application of smart solutions. Speaking of pan-city development in Bareilly, it includes the building of contactless hand washing stations, improved solid waste management system, and the development of e-learning platforms.

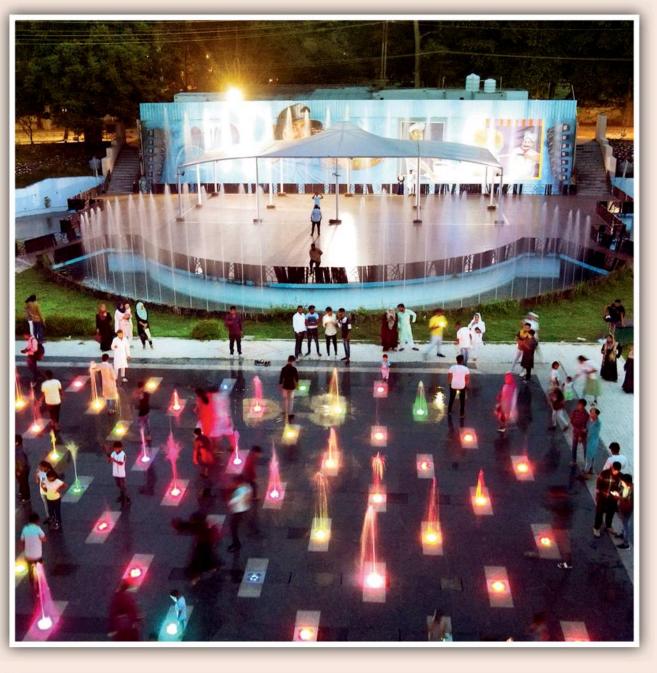
Other noteworthy initiatives comprise installing a solar park for public lighting and utilities, surveillance cameras on the signals, and introducing the Mera Bareilly app.

To promote awareness about Smart City projects, many events are organised, which include Cyclothon, Walkathon, Freedom to Cycle event, and the Road Safety event. The city has also seen the installation of EV charging projects, improved facade lighting, introduction of smart electric buses, solar trees, women's helpdesk, installation of smart toilets with sanitary dispensing machines, etc.

Join us as we take you through the journey of how we have undertaken the transformation of Bareilly into a smart city.











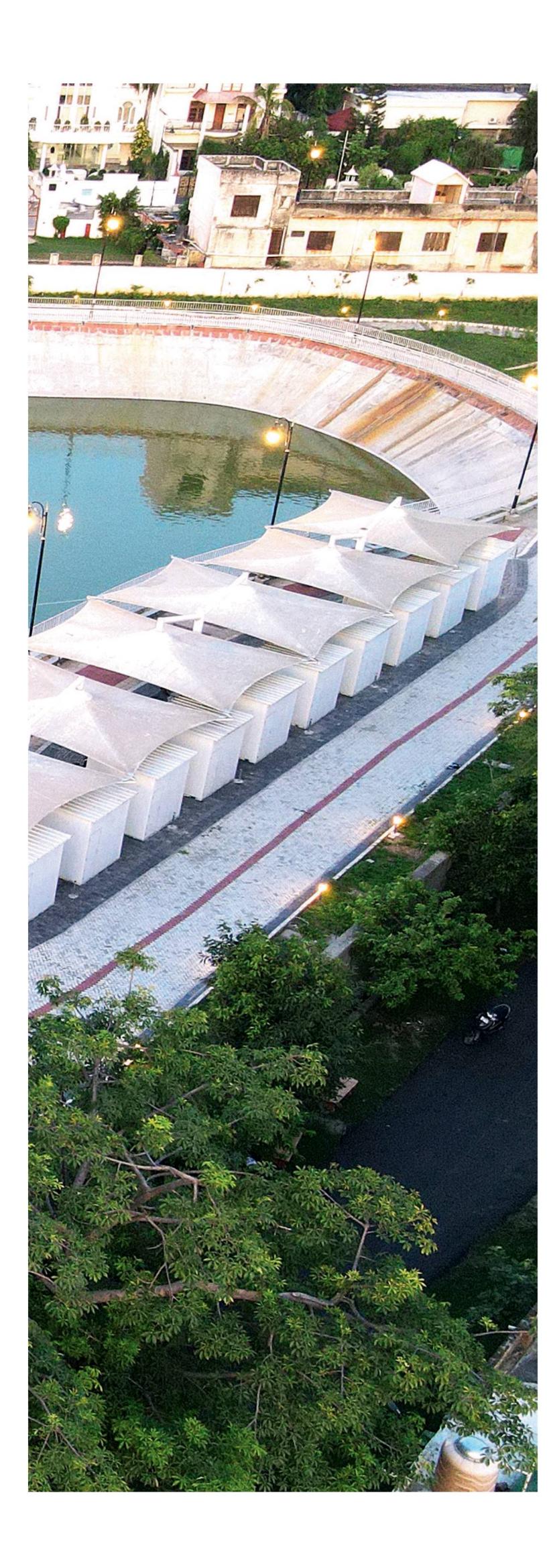
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From the installation of efficient sewage management systems to the construction of better roads, new flyovers and skywalks, no stone is being left unturned to transform Bareilly into a shining example of a Smart City

# Bareilly to get Smart City tag

tural developments undertaken by BSCL that will improve the quality of life enjoyed by city residents. It also inculcates a thriving commercial, residential and social atmosphere. Of particular interest is the upcoming Skywalk, the state-of-the-art sports facilities, the multi-level parking structure, and Bareilly Haat that will lead the city towards a glorious future.

## REJUVENATING SANJAY COMMUNITY HALL POND

Bareilly Smart City Ltd has embarked on an ambitious journey to transform the Sanjay Community Pond into a vibrant and inviting space for residents and visitors alike. This remarkable endeavour has breathed a new life into the heart of the city, offering an oasis of tranquillity and recreation that truly reflects the essence of a smart and sustainable urban environment.

The renovated Sanjay Community Pond boasts a rejuvenating jogging track that winds around the serene waterbody, inviting fitness enthusiasts to embark on a refreshing run amidst nature's beauty. Along the jogging track, comfortable seating facilities are thoughtfully placed, allowing visitors to take in the breathtaking views and enjoy moments of peaceful contemplation.

The introduction of a captivating musical fountain in the pond serves as a dynamic centrepiece that brings life and movement to the surroundings. The interplay of water and light creates a mesmerising spectacle, elevating the ambiance and turning the pond into a vibrant hub of activity and relaxation.

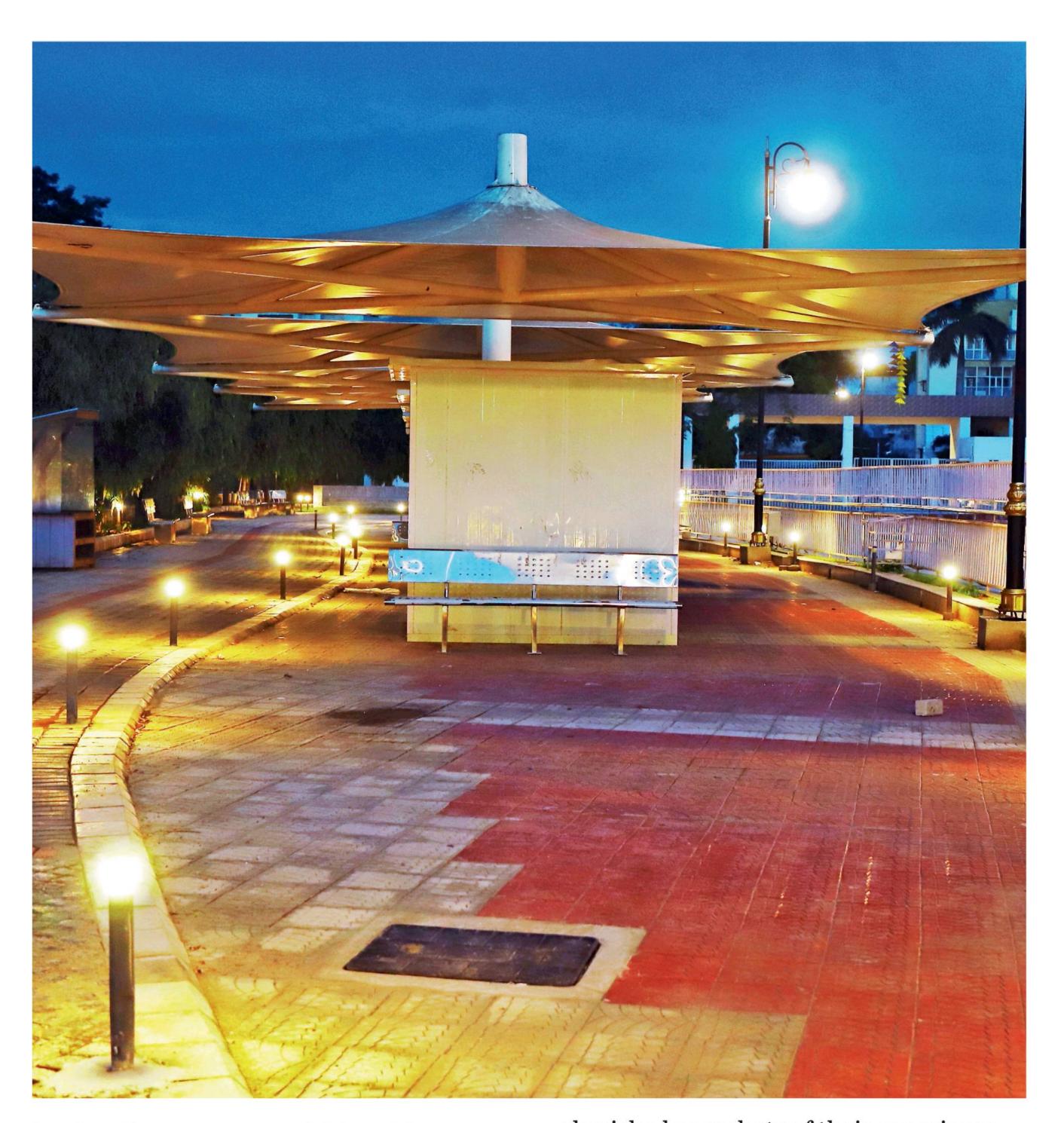


The introduction of a captivating musical fountain in the pond serves as a dynamic centerpiece that brings life and movement to the surroundings. The interplay of water and light creates a mesmerising spectacle, elevating the ambience and turning the pond into a vibrant hub of activity and relaxation

The rejuvenated pond is a haven for families, featuring a dedicated kids' area that promises hours of joy and play. With modern play equipment and safe spaces for little ones, the pond caters to the needs of all age groups, ensuring that every family member can relish the experience.

Catering to the interests of youth and adults, a skating rink is a delightful addition that offers a space for recreation and skill-building. Strategically placed gazebos provide shaded retreats for those seeking a moment of respite, allowing visitors to unwind in harmony with nature.

The community pond embraces culinary delights with strategically positioned food



kiosks offering an array of delectable treats, which ensures that visitors can savour a diverse range of meals while enjoying the serene views, creating an inclusive space for shared dining experiences.

The pond's transformation wouldn't be complete without provisions for entertainment and memory-making. A dedicated performance area sets the stage for cultural events and gatherings that bring the community together. Meanwhile, a designated selfie point captures the pond's beauty, ensuring that visitors leave with

cherished snapshots of their experience.

The Sanjay Community Pond renovation by Bareilly Smart City Ltd, stands as a testament to the power of vision and innovation in urban planning. This rejuvenated space showcases how a harmonious blend of nature and modern amenities can enrich the quality of life for residents while attracting visitors from near and far. The once-neglected pond has now emerged as a symbol of Bareilly's commitment to creating sustainable, smart, and inviting spaces for everyone to enjoy.



urban connectivity and enhance the overall quality of life for residents. By prioritising the integration of technology, sustainability, and aesthetics, BSCL is actively shaping the future of transportation in the ABD area, ensuring a seamless and enjoyable experience

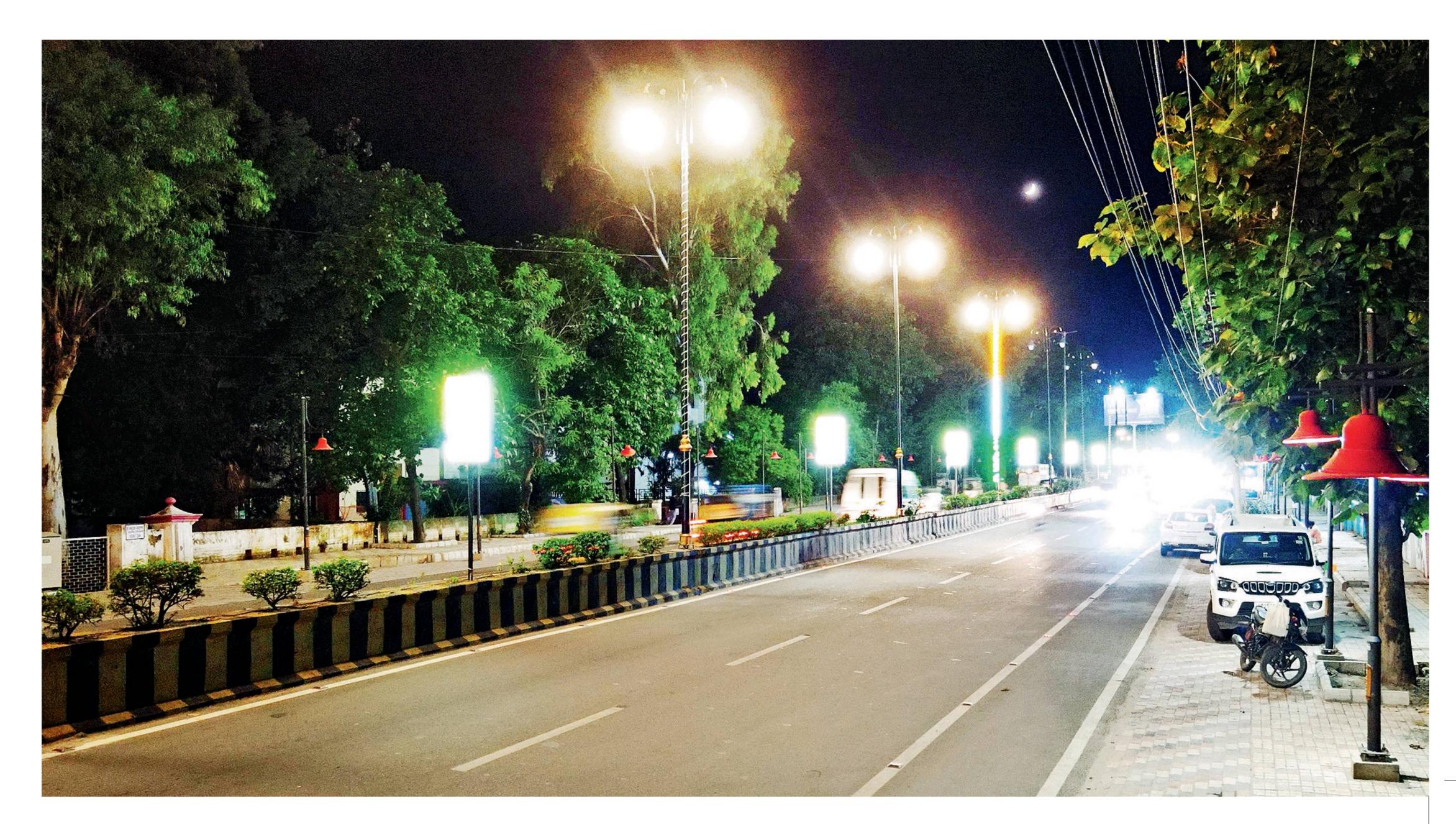
## TRANSFORMING URBAN CONNECTIVITY: MAJOR ROAD DEVELOPMENT IN ABD AREA BY BAREILLY SMART CITY LIMITED

Aside from developing multi-level parking, Bareilly Smart City Limited (BSCL) is also dedicated to enhancing urban connectivity and creating sustainable infrastructure in the city's ABD (Area-Based Development) areas. As part of this commitment, BSCL is undertaking major road development project that encompasses the construction of roads, drains, smart road features, junction development with ambient lighting, signages, lane-walking dividers, planters, catseye and vertical gardens. This comprehensive road development initiative aims to improve transportation efficiency, ensure proper water management, enhance road safety, and create aesthetically pleasing urban spaces.

The road development project includes the

construction of well-planned and well-designed roads that cater to the needs of pedestrians, cyclists, and motorists. These roads are built using high-quality materials and adhere to modern engineering standards to ensure durability, longevity, and smooth transportation. The road network is strategically designed to enhance connectivity within the ABD area and provide seamless access to various destinations, including residential areas, commercial centres, educational institutions, and healthcare facilities.

This project incorporates smart road features that leverage technology to improve transportation efficiency, safety, and connectivity. These features may include intelligent traffic management systems, dynamic



lane control, real-time traffic information display boards, and smart street lighting. By utilising advanced technology, BSCL aims to optimise traffic flow and reduce congestion, alongwith enhanced road safety, to ensure a seamless intelligent transportation experience for all road users.

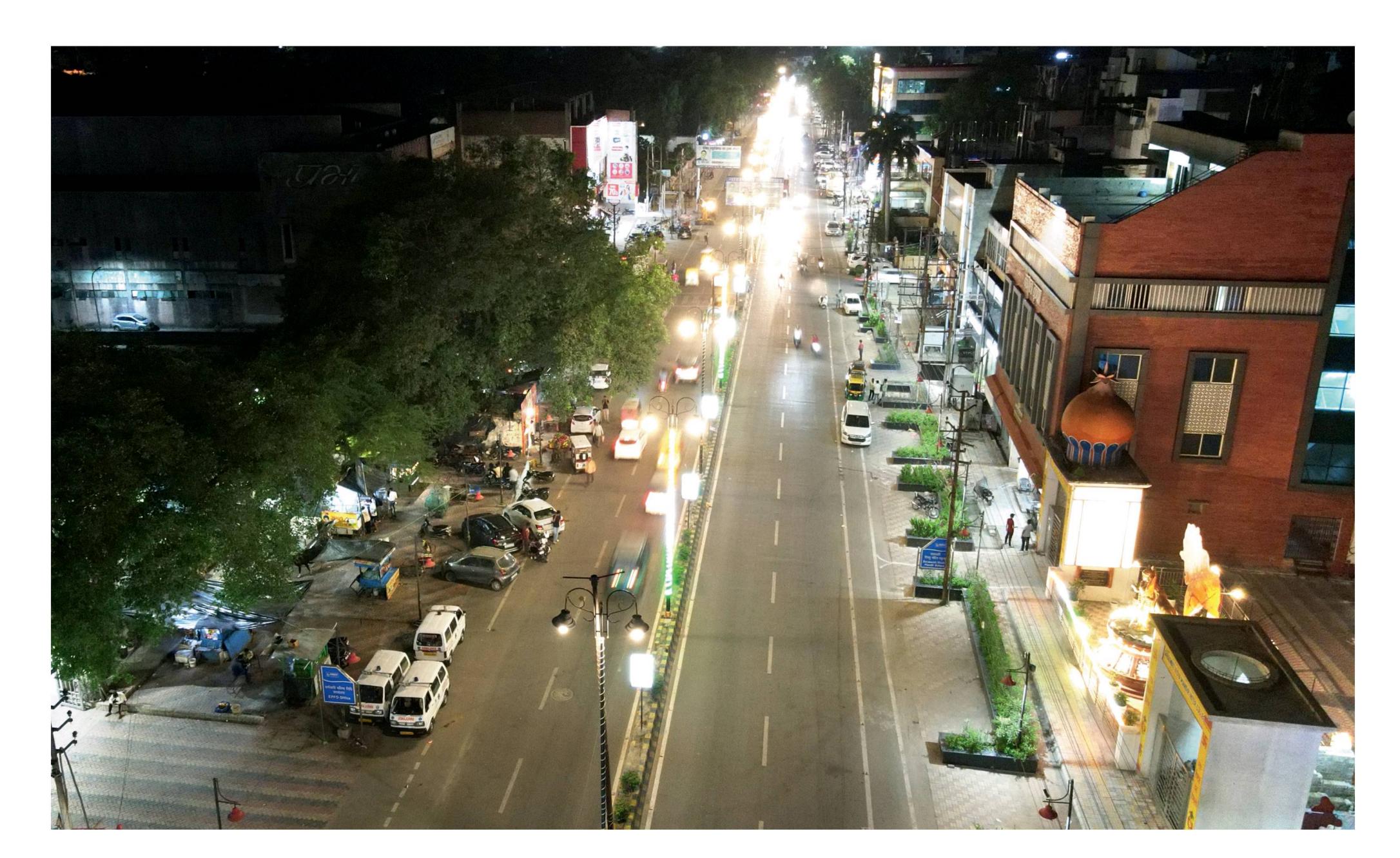
Junctions play a crucial role in traffic management and pedestrian safety, eliminating bottlenecks caused by traffic jams. BSCL's road development project focuses on the transformation of junctions within the ABD area. These junctions are upgraded with water fountains and ambient lighting, creating visually appealing and well-lit environments. The installation of energy-efficient LED lighting enhances visibility, promotes safety, and contributes to the overall aesthetics of the area. By ensuring well-designed and well-lit junctions, BSCL aims to create a pleasant and secure experience for road users.

To facilitate efficient navigation and enhance road safety, BSCL incorporates well-placed signages and way-finding systems along the road network. Clear and informative signages guide motorists, cyclists, and pedestrians, providing directions, information about nearby facilities, and regulatory instructions. These signages improve the overall efficiency of transportation and contribute to a well-organised and user-friendly road network.

In addition to improving connectivity and road infrastructure, BSCL embraces sustainable and green initiatives by incorporating vertical gardens along the road corridors. The vertical gardens, planters and dividers, not only enhance the visual appeal of the ABD area but also contribute to environmental sustainability. Vertical gardens help reduce air pollution, improve air quality, and create a healthier and more vibrant urban environment. The integra-

tion of green spaces within the road development project promotes the overall well-being of the community and adds a touch of natural beauty to the cityscape.

The major road development project in the ABD area by BSCL signifies a commitment to creating efficient, sustainable, and aesthetically pleasing urban spaces. Through the construction of well-designed roads, efficient drainage systems, smart road features, junction enhancements, informative signages, and green initiatives such as vertical gardens, BSCL aims to transform urban connectivity and enhance the overall quality of life for residents and visitors. By prioritising the integration of technology, sustainability, and aesthetics, BSCL is actively shaping the future of transportation in the ABD area, ensuring a seamless and enjoyable experience for all road users while fostering a greener and more sustainable Bareilly.





## REVITALISING GREEN SPACES: RENOVATION OF INTERNAL ROADS BY BSCL IN ABD AREA

As part of its commitment to promote urban development and enhancing the quality of life, Bareilly Smart City Limited (BSCL) is undertaking a comprehensive project to renovate the internal roads, construct drains, develop pedestrian pathways, install lighting poles, and implement signages. These initiatives aim to create a safe, accessible, and visually appealing urban environment that enhances connectivity, convenience, and overall liveability for residents and visitors.

BSCL recognises the importance of well-maintained roads for smooth transportation and safe mobility. BSCL is renovating the internal roads to improve their condition and ensure a comfortable commuting experience. This includes DBM and bitumen coating, cateyes, addressing potholes, and enhancing road markings. These renovation efforts contribute to a safer and more efficient transportation network within the locality.

To mitigate the impact of heavy rainfall and prevent waterlogging, BSCL is constructing drains along the internal roads. These drains are designed to effectively manage stormwater runoff and channel it away from the roads, reducing the risk of flooding. By implementing proper drainage systems, BSCL ensures that the internal roads remain functional and accessible during rainy seasons, promoting the safety and convenience of the residents.

BSCL also acknowledges the significance of pedestrian-friendly infrastructure in promoting sustainable mobility. As part of the project, BSCL is developing well-designed pedestrian pathways in ABD area. These pathways prioritise the safety and comfort of pedestrians, encouraging active modes of transportation such as walking and

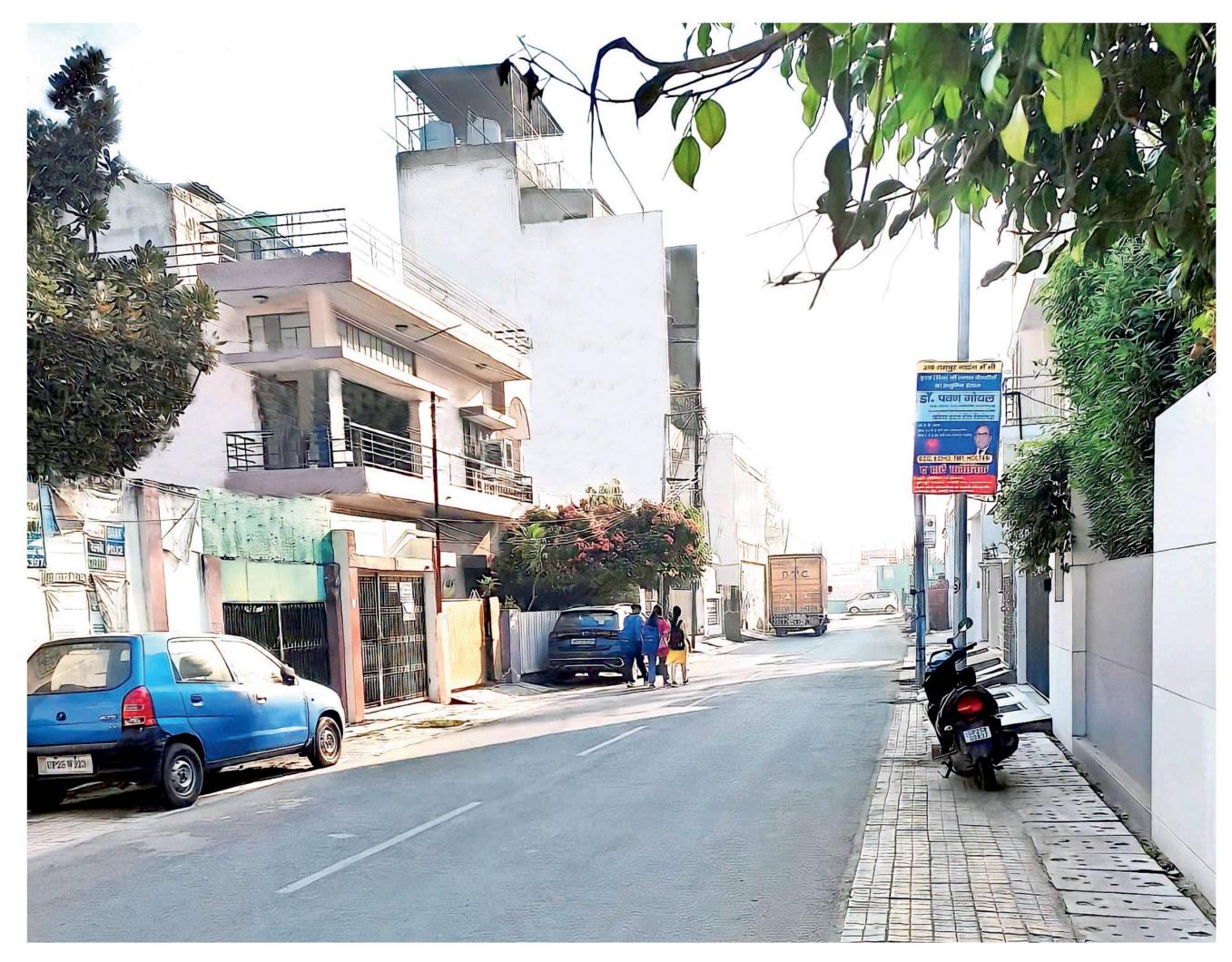
cycling. With features like smooth paving, proper lighting, and designated crossings, the pedestrian pathways enhance the overall pedestrian experience and promote a healthier and greener community.

As proper lighting is crucial for enhancing safety and security in urban areas, BSCL is installing lighting poles alongside the internal roads to provide adequate illumination during night-time hours. These lighting poles are strategically placed to ensure visibility and create a safer environment for motorists and pedestrians alike. By illuminating the roads, BSCL enhances road safety and promotes a sense of security for everyone using the area.

Clear and informative signages play a vital role in guiding and informing road users. BSCL is implementing well-placed signages to provide directions, convey important information, and enhance overall navigation. These signages contribute to the smooth flow of traffic, improve road safety, and create a sense of orderliness within the area. Additionally, visually appealing signages enhance the aesthetic appeal of the locality, making it more attractive to residents and visitors.

The renovation of internal roads, construction of drains, development of pedestrian pathways, installation of lighting poles and implementation of signages under the ABD area project by BSCL highlight its commitment to transforming the urban landscape and enhancing the quality of life for residents. These initiatives improve connectivity, ensure safer transportation, and create a visually pleasing environment within the locality. By focusing on these key elements, BSCL aims to create a sustainable and vibrant community that residents can be proud of.







### REVOLUTIONISING PARKING SOLUTIONS: PUZZLE-TYPE MULTILEVEL CAR PARKING WITH ELECTROMECHANICAL TECHNOLOGY BY BSCL

es have become significant challenges in urban are-as. To address this issue, Bareilly Smart City Limited (BSCL) has implemented a pioneering solution: the Puzzle-Type Multilevel Car Parking System with Electromechanical Technology. This innovative parking system by BSCL aims to ease traffic congestion and optimise parking space utilisation at prominent locations in the city.

The Puzzle-Type Multilevel Car Parking System utilises advanced electromechanical technology to maximise the use of available space. By vertically stacking and arranging cars in a puzzle-like structure, this system optimises the parking capacity within a limited footprint. It enables multiple levels of parking, making efficient use of vertical space and significantly increasing the number of vehicles that can be accommodated. This innovative solution helps alleviate the scarcity of parking spaces in busy areas, reducing traffic congestion and improving overall mobility.

BSCL's Puzzle-Type Multilevel Car Parking System is designed to provide a seamless and user-friendly parking experience. The system incorporates automated features that streamline the parking process, eliminating the need for manual maneuvering of vehicles. Drivers can easily park and retrieve their vehicles using user-friendly interfaces and automated mechanisms. This not only saves time but also enhances convenience for users, contributing to a hassle-free parking experience.

The BSCL parking system prioritises the security and safety of vehicles and users. The system is equipped with state-of-theart security features, including surveillance cameras, access control systems, and real-time monitoring. These measures ensure the safety of vehicles and deter unauthorised access. Additionally, the automated parking process minimises the risk of accidents or damage caused by human error during parking or retrieval.

In line with its commitment to sustainability, the BSCL's Puzzle-Type Multilevel Car Parking System incorporates eco-friendly

electromechanical technology, optimising power consumption and reducing environmental impact. Additionally, the efficient utilisation of vertical space helps reduce the need for sprawling parking lots, preserving green spaces and promoting a more sustainable urban environment.

The implementation of the Puzzle-Type Multilevel Car Parking System aligns with the broader smart city initiatives of BSCL. By addressing parking challenges and reducing traffic congestion, this innovative solution enhances urban mobility and improves the quality of life for residents and visitors. features. The system utilises energy-efficient It promotes the efficient utilisation of urban

space and contributes to creating a smarter, more sustainable, and people-centric city.

The introduction of the Puzzle-Type Multilevel Car Parking System with electromechanical technology by the BSCL marks a significant milestone in addressing parking and traffic congestion challenges in prominent locations. This innovative solution optimises parking space utilisation, saves time for users, enhances security and safety, and promotes sustainability. By adopting this smart parking system, the BSCL reinforces its commitment to creating a more efficient, convenient, and environmentally friendly urban environment in Bareilly.





## ENHANCING SPORTING EXCELLENCE: INDOOR SPORTS FACILITY AT BAREILLY STADIUM

In its continuous effort to promote sports and foster a culture of athleticism, Bareilly Smart City Limited (BSCL) has unveiled a state-of-the-art indoor sports facility at Bareilly Stadium. This modern facility offers a wide range of sports, including handball, volleyball, basketball, judo, badminton, table tennis, and more. The Indoor Sports Facility at Bareilly Stadium is designed to provide athletes and sports enthusiasts with a world-class environment to train, compete, and excel in their chosen disciplines.

The Indoor Sports Facility at Bareilly Stadium serves as a hub for sporting excellence, providing athletes with access to top-notch amenities and training facilities. The facility is equipped with multiple courts and arenas that cater to various sports disciplines, allowing athletes to practice and compete in their preferred sports. The availability of diverse sporting options encourages participation, skill development, and the nurturing of talent across a broad spectrum of sports.

The facility offers a versatile range of sports, enabling athletes to explore different disciplines and diversify their skills. Handball, volleyball, basketball, judo, badminton, table tennis, and other sports are available, catering to the varied interests and preferences of the athletes. This comprehensive range of sports promotes inclusivity and provides opportunities for athletes to discover and excel in their true sporting potential.

BSCL has spared no effort in ensuring that the Indoor Sports Facility at Bareilly Stadium boasts world-class infrastructure. The courts and arenas are equipped with the



latest technology, ensuring optimal playing conditions and enhancing the overall sporting experience. From professional-grade sports surfaces to advanced lighting systems, the infrastructure is designed to meet inter-national standards and provide athletes with an environment that facilitates their growth and performance.

Recognising the importance of training and coaching, the Indoor Sports Facility at Bareilly Stadium offers comprehensive support to athletes. The facility provides access to experienced trainers and coaches who offer expert guidance, technical instruction, and specialised training pro-grams tailored to each sport. Athletes have the opportunity to receive professional coaching, improving their skills and performance under the guidance of qualified trainers.

The Indoor Sports Facility at Bareilly Stadium also aims to promote community engagement and encourage sports participation among residents. The facility is open to the public, allowing individuals of all ages and skill levels to enjoy recreational sports activities. This inclusive approach fosters a sense of community and well-being, encouraging a healthier and more active lifestyle for the residents of Bareilly.

The Indoor Sports Facility at Bareilly Stadium, established by BSCL, represents a significant milestone in the development of sports infrastructure in the city. By providing a world-class facility with a diverse range of sports options, BSCL aims to promote sporting excellence, talent development, and community engagement. The facility's state-of-the-art infrastructure and comprehensive training support create an environment conducive to the growth and success of athletes. As Bareilly continues its journey towards becoming a smart city, the Indoor Sports Facility stands as a testament to the city's commitment to nurturing athletic talent and promoting a vibrant sporting culture.





## BUILDING A HUB FOR SHOOTING SPORTS AND COMMUNITY ENGAGEMENT: THE COMPREHENSIVE FACILITIES AT THE BSCL RIFLE CLUB

Bareilly Smart City Limited (BSCL) is also dedicated to promoting sports and recreational activities that contribute to the overall development of the community. In line with this vision, the BSCL has undertaken a remarkable project of building a Rifle Club equipped with indoor and outdoor shooting ranges, an equipment centre and armoury, a control room, a media room, and a multipurpose hall.

Rifle Club has indoor and outdoor shooting ranges. The indoor range provides a controlled environment for shooters to practice their skills with designated lanes, state-of-the-art target retrieval systems, and advanced safety features. The outdoor range,

on the other hand, offers shooters the opportunity to train and compete in open-air surroundings, accommodating various shooting distances and disciplines. Both ranges are designed to international standards, ensuring a safe and professional environment for shooters of all levels.

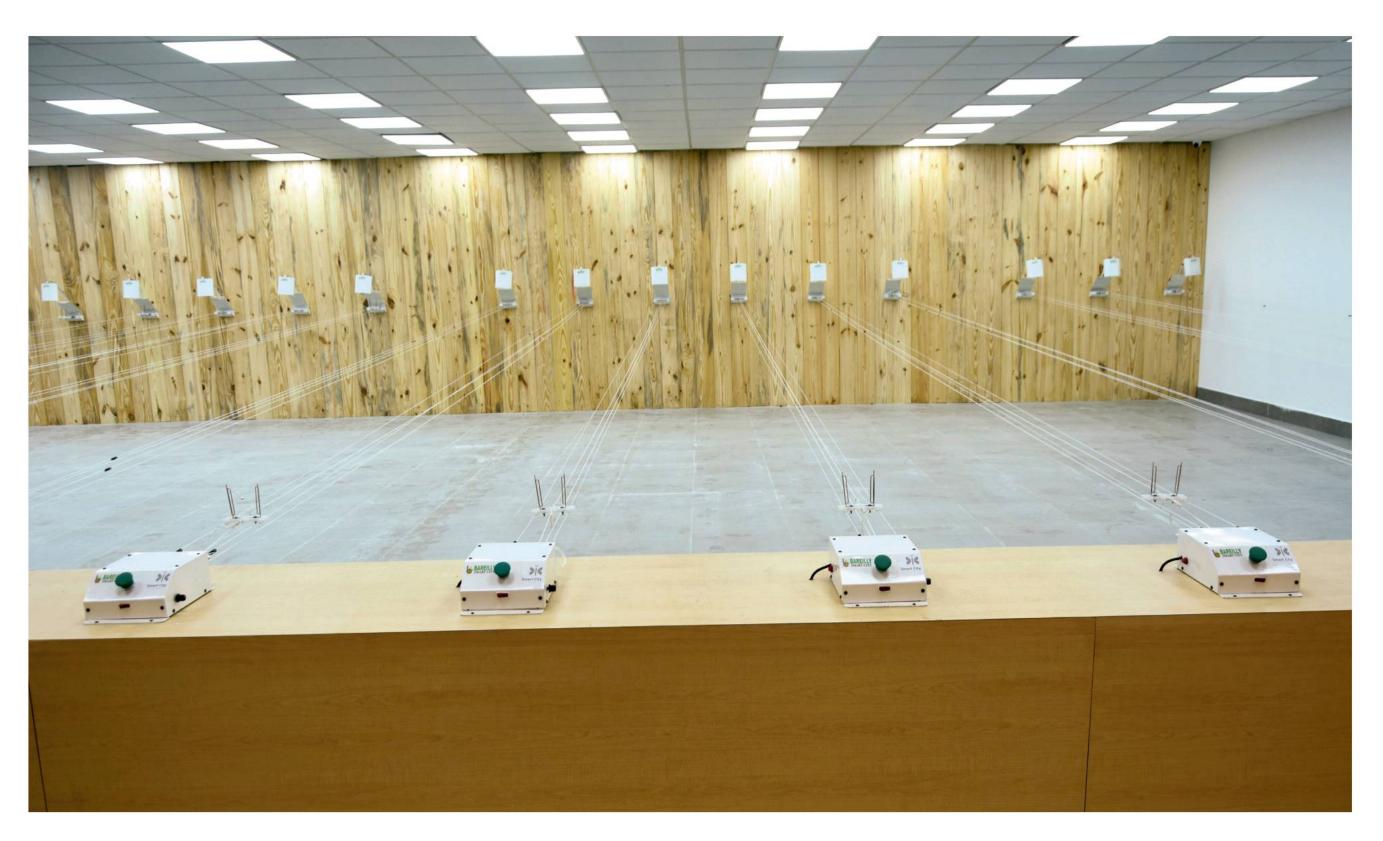
The Rifle Club includes a well-equipped equipment centre and armoury to cater to the needs of shooters. The centre offers a wide range of shooting equipment, including firearms, ammunition, safety gear, and accessories. The armoury ensures the secure storage and proper maintenance of firearms, adhering to strict safety protocols. This facility provides shooters with convenient access

to high-quality equipment, enhancing their training experience and supporting their pursuit of excellence.

To facilitate efficient operations and enhance the overall experience at the Rifle Club, BSCL has further established a dedicated control room. The control room serves as the nerve centre of the facility, overseeing range operations, monitoring safety measures, and coordinating activities. Additionally, a media room is provided for capturing and broadcasting shooting events, interviews, and other related content. These facilities contribute to creating a seamless and professional environment for shooters and allow for effective communication and dissemination of information.

In addition to the shooting-specific facilities, the BSCL Rifle Club also features a multipurpose hall that serves as a versatile space for various activities. This hall can be utilised for seminars, workshops, training sessions, and community events. It also provides a platform for educational and cultural activities, promoting holistic development and fostering community engagement. The multipurpose hall reflects BSCL's commitment to creating a facility that caters to the diverse needs of the community beyond shooting sports.

The comprehensive facilities offered by the BSCL at Rifle Club underscore its significance as a hub for shooting sports, skill development, community engagement, and multi-purpose utility in Bareilly. With its indoor and outdoor shooting ranges, equipment centre and armoury, control room, media room, and multipurpose hall, the Rifle Club caters to the needs of shooters, provides a professional and safe environment, and promotes the overall well-being of the community. BSCL's commitment to sportsmanship, skill development, and community engagement shines through the establishment of this remarkable facility,



which further contributes to the growth and vibrancy of Bareilly as a smart city.

#### Facilities in a nutshell:

Rifle shooting has found many takers in the city. With hundreds of children looking for a future in shooting, there is no dearth of talent

in the district. Bareilly Smart City Limited has created a way for such talent, providing the best of amenities under one roof.

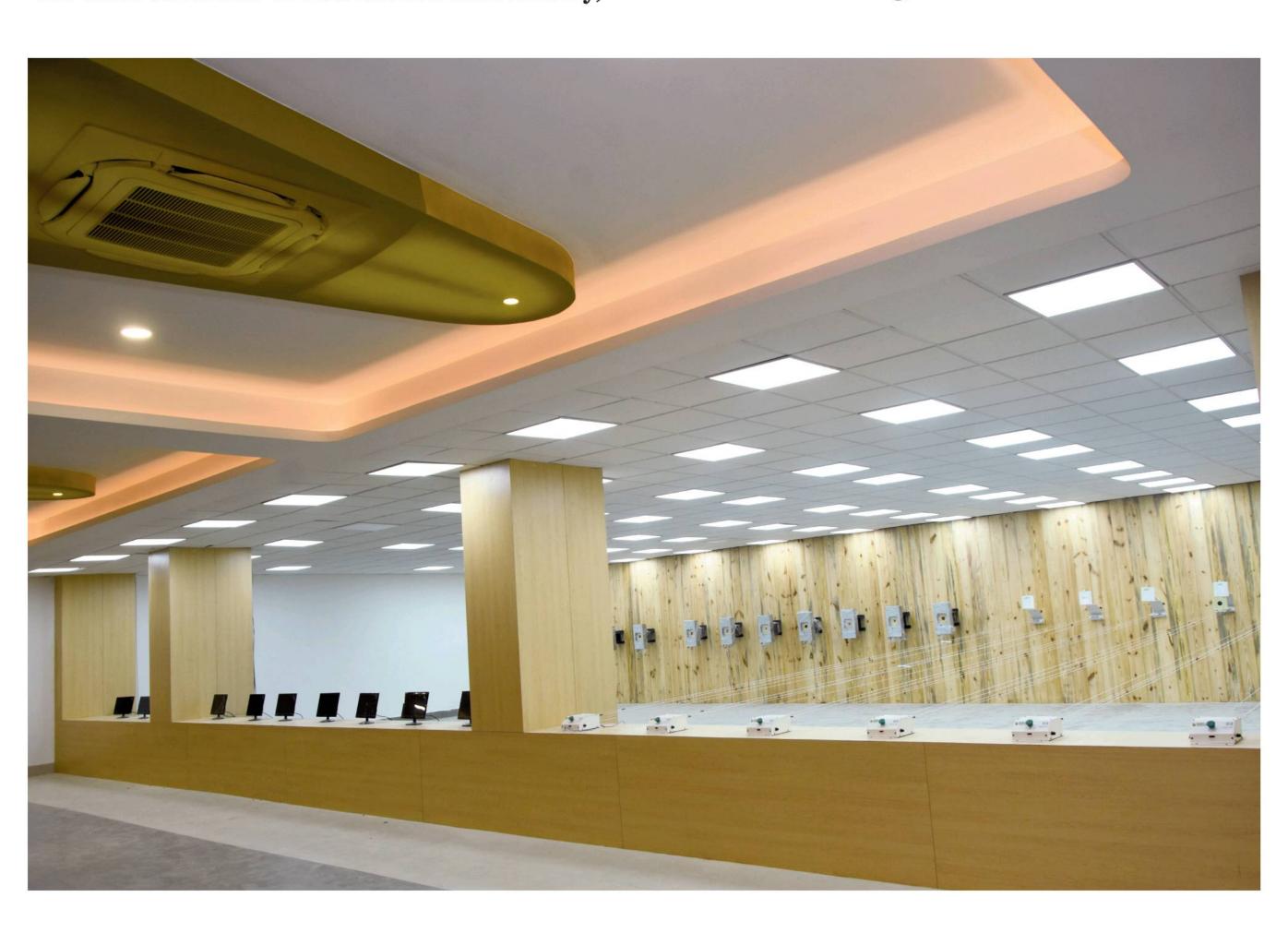
The project's aim is to provide a new 25 mt and 50 mt outdoor shooting range with a 10 mt indoor shooting range at the existing Rifle Club site, which will be a training ground for both shooting athletes and shooting enthusiasts to practice. Local and national matches can also be hosted here.

#### The Rifle Club has equipment like:

Trap Machines, Face masks, Pistol and Air rifle, Target carriers, Clay buds, Score board, Consumables, 25 meters and 50 meters electronic scoring targets, Pellets, and many such gears to provide the best of deal to its patrons.

#### The Rifle Club interior:

The indoors or the interiors of the Rifle Club offer a suitable ambience as also cover from inclement weather conditions under a controlled environment. With perfect flooring, false ceiling, wall panelling, furniture as per requirement, partition walls and signages, the Rifle Club.



### REDEVELOPMENT OF URBAN HAAT TO BAREILLY HAAT: A CULTURAL AND COMMERCIAL HUB FOR HANDICRAFTS

Bareilly Smart City Limited (BSCL) is on a mission to revitalize and rejuvenate Urban Haat, transforming it into the exquisite and vibrant destination known as "Bareilly Haat." In this ambitious endeavour, the city's rich heritage of handicrafts takes centre stage, creating a dynamic space that caters to artisans, visitors, and the entire community. This monumental redevelopment project spans various zones, each designed to serve a unique purpose and contribute to the rich tapestry of Indian handicrafts. As we delve deeper into the transformation of Urban Haat into Bareilly Haat, we will explore the essence and significance of each zone, unveiling a world of creativity, innovation, and cultural richness.

#### HANDICRAFT TRAINING ZONE

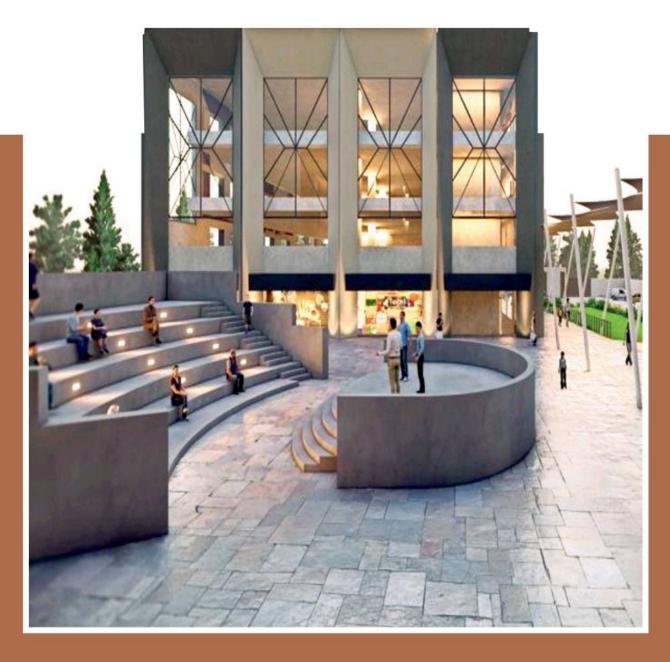
At the heart of Bareilly Haat, the Handicraft Training Zone is a haven for artisans and students passionate about traditional handicrafts. This meticulously designed zone boasts state-of-the-art facilities, including well-equipped classrooms, fully equipped labs, and dedicated

production areas tailored to various handicraft disciplines. Here, artisans are presented with a golden opportunity to refine their skills, explore new techniques, and foster collaboration with fellow craftsmen. It's not merely a space for learning; it's a community where creativity and skill enhancement flourish, creating a vibrant and supportive atmosphere.

#### **DESIGN INCUBATION CENTRE**

The Design Incubation Centre stands as a beacon of innovation and entrepreneurship in the realm of handicrafts. This creative space is a platform for artisans and designers to come together, collaborate, experiment, and craft unique, contemporary handicraft products. The centre offers an array of workshops, mentorship programs, and valuable resources that empower artisans and designers, propelling their creations to new heights of excellence. In this zone, innovation and traditional craftsmanship converge to foster the growth and commercial viability of new handicraft ventures.





#### STATE-OF-THE-ART AUDITORIUM

The State-of-the-Art auditorium, with its impressive seating capacity of 200, emerges as a cultural and artistic epicentre within Bareilly Haat. This multi-purpose venue plays host to a myriad of events, captivating performances, and exquisite exhibitions that proudly display the diverse artistic talents of the region. Whether it's a captivating cultural performance or a spellbinding exhibition, the auditorium is the quintessential space for cultural exchange. It kindles a deeper appreciation for traditional arts and crafts, serving as a hub where art and culture come alive.

#### COMMERCIAL ZONE

For those seeking the richness of traditional Indian handicrafts, the Commercial Zone within Bareilly Haat is a vibrant marketplace that beckons artisans and visitors alike. This thriving area features ODOP (One District One Product) shops, each specializing in a unique array of handicraft products. From intricately crafted furniture to timeless souvenirs, the Commercial Zone offers a diverse collection. But the appeal doesn't stop there; visitors are also treated to a selection of food courts, a bustling cafeteria, restaurants serving local cuisine, and a shopping area where local crafts and cuisine entwine to create a lively and engaging environment.

#### RECREATION & ENTERTAINMENT ZONE

The Recreation & Entertainment Zone caters to visitors of all ages, providing a diverse range of attractions that promise unforgettable experiences. The crowning jewel of this zone is the iconic Ferris wheel, offering panoramic views of the surroundings and enhancing the overall allure of Bareilly Haat. Furthermore, the Kala Sanskriti Kendra, a cultural centre within this zone, organizes workshops, captivating performances, and interactive sessions to promote art and culture. To round out the offerings, there is a movie theatre where visitors can unwind and enjoy cinematic experiences, ensuring there's something for everyone.

#### **INFORMATION ZONE**

The Information Zone within Bareilly Haat is an educational and interactive space that invites visitors to embark on a journey of discovery. At the heart of this zone is an information and interpretation centre where visitors can delve into the history, significance, and intricate techniques associated with various handicrafts. World-class exhibition galleries stand as testaments to the mastery of traditional craftsmanship, offering



visitors a profound understanding of the cultural heritage intricately woven into each creation.

#### **ACCOMMODATION ZONE**

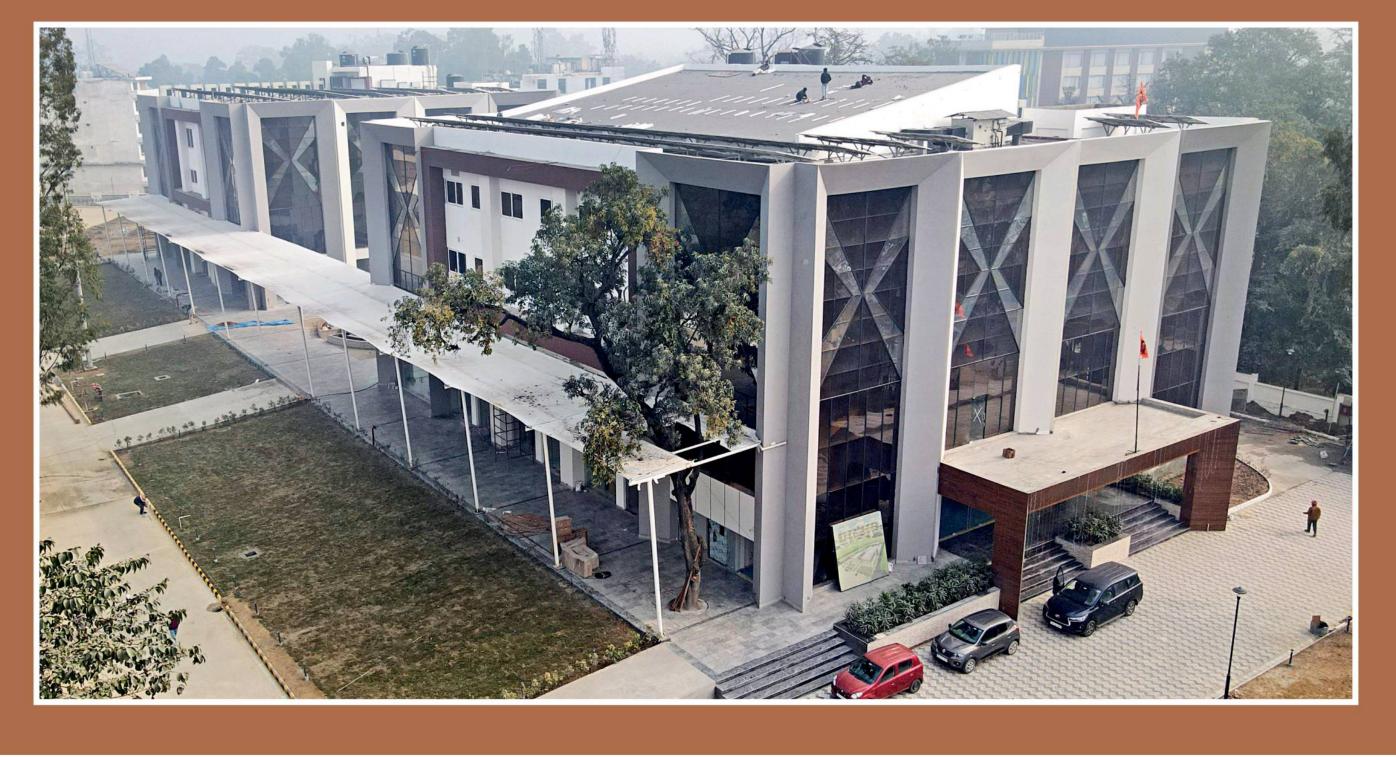
To cater to the diverse needs of artisans, visitors, and tourists, Bareilly Haat features an Accommodation Zone, complete with comfortable and convenient lodging options. This includes dormitories and guest rooms, designed to offer a welcoming and cosy haven for artisans participating in workshops, visitors attending events, and tour-

ists exploring the city's rich cultural offerings. It ensures that everyone can relish the beauty of Bareilly Haat without a worry.

#### FERRIS WHEEL

Bareilly Smart City Ltd is set to unveil the majestic Ferris Wheel, a breathtaking addition to the cityscape, offering panoramic views and unforgettable experiences. Elevating the charm of Bareilly to new heights as this addition promises a delightful experience for locals and tourists. The Ferris Wheel has 21 gondolas that can accomodate 84 people at the same time.

The transformation of Urban Haat into Bareilly Haat by BSCL is a testament to their unwavering commitment to preserving and promoting the rich heritage of handicrafts in the region. With dedicated zones for training, innovation, cultural exchange, commerce, recreation, and information dissemination, Bareilly Haat creates a dynamic ecosystem that nurtures the growth of traditional handicrafts while providing an unforgettable experience for visitors.





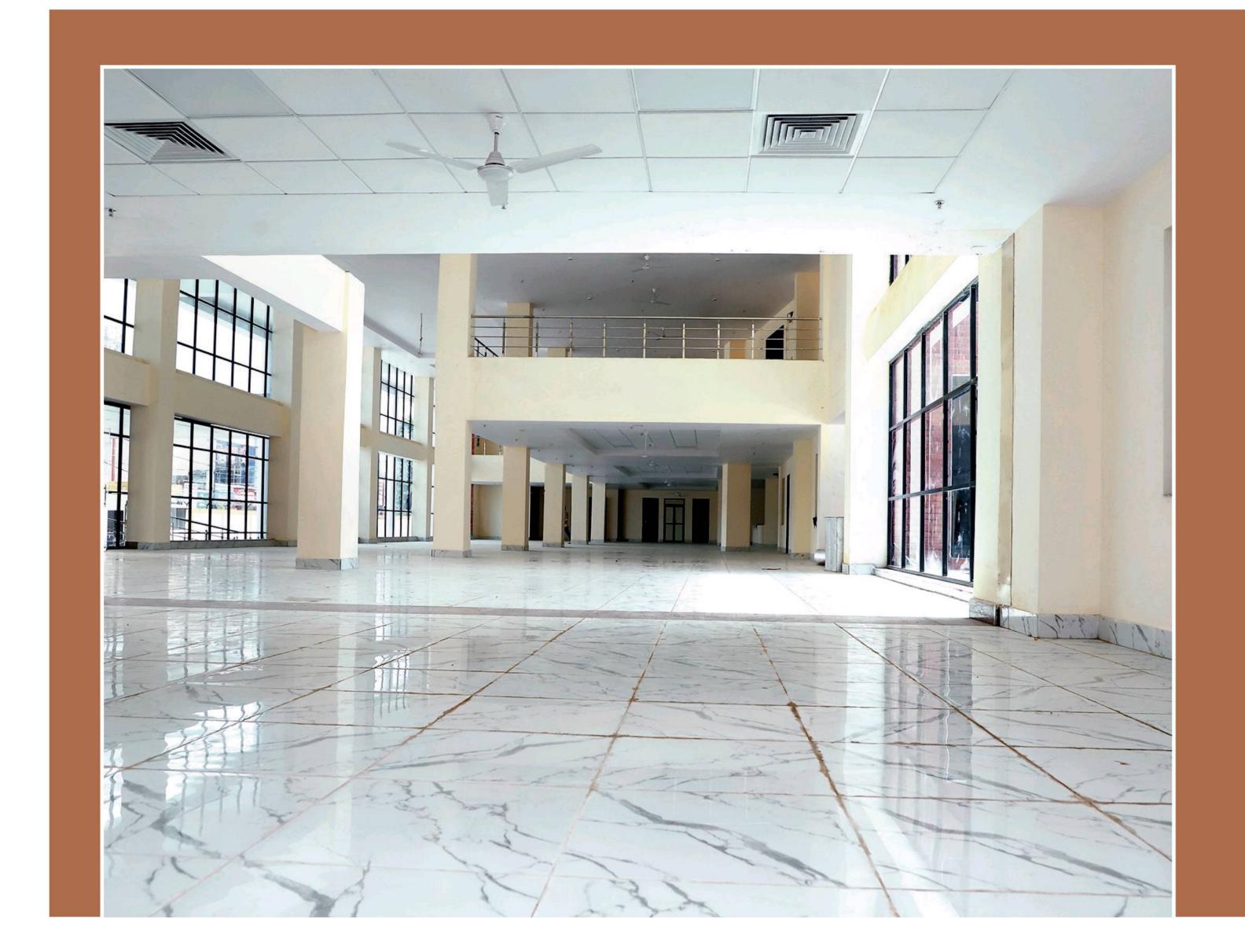
## NURTURING INNOVATION AND CULTURAL ENRICHMENT: INCUBATION CENTRE AND AUDITORIUM AT GOVERNMENT INTER COLLEGE BAREILLY — A HUB OF CREATIVITY AND COLLABORATION

The Bareilly Smart City Limited (BSCL) is spearheading a transformative project to enhance educational and cultural infra-

structure in the city. The construction of a state-of-the-art four-hundred-seater auditorium and an Incubation Centre at GIC

Bareilly aims to create a vibrant space that fosters innovation, artistic expression, and entrepreneurial growth. With modern amenities including a cafeteria and parking facilities, this ambitious project by the BSCL seeks to provide a nurturing environment for talent development, collaboration, and cultural enrichment.

The Incubation Centre at GIC Bareilly is designed to foster a spirit of innovation and entrepreneurship within the community. It serves as a catalyst for start-ups and aspiring entrepreneurs, providing them with a supportive ecosystem to nurture their ideas and convert them into successful ventures. The Incubation Centre offers dedicated workspace, mentoring programs, access to resources, and networking opportunities, creating an environment that encourages collaboration, creativity, and growth. By nurturing innovation and fostering entrepreneurial success, the Incubation Centre





contributes to the economic development and prosperity of the city.

The construction of a four-hundred-seater auditorium signifies the BSCL's commitment to promoting cultural enrichment and providing a platform for artistic expression. This modern and well-equipped facility will serve as a hub for various cultural events, including music concerts, theatrical performances, dance recitals, and educational seminars. The auditorium's spacious seating capacity ensures that a larger audience can enjoy and appreciate the rich cultural heritage and diverse artistic talents of the city. It becomes a centre of community engagement, fostering a sense of pride and celebration of the arts.

The Incubation Centre and auditorium are complemented by a cafeteria that serves as a social hub for networking and refreshment. It provides a welcoming space for individuals to connect, collaborate, and exchange ideas. The cafeteria offers a variety of refreshments, promoting a conducive environment for informal discussions, networking events, and community gatherings. This space further enhances the collaborative atmosphere within the Incubation Centre and adds to the overall experience of visitors to the auditorium.

To ensure the convenience of visitors, the project includes ample parking facilities. The provision of designated parking spaces not only facilitates easy access to the Incubation Centre and auditorium but also ensures a seamless experience for attendees. This thoughtful addition eliminates parking hassles and encourages more individuals to participate in the vibrant activities and events held at GIC Bareilly.

The construction of an Incubation

Centre, four-hundred-seater auditorium, cafeteria, and parking facilities at GIC represents a significant milestone in the development of educational and cultural infrastructure by the BSCL. The Incubation Centre nurtures innovation, fosters entrepreneurship, and drives economic growth by providing start-ups and entrepreneurs with the necessary support and resources. The auditorium serves as a hub for cultural enrichment, artistic expression, and community engagement. With the addition of a cafeteria and parking facilities, visitors can enjoy a holistic experience that encourages networking, collaboration, and convenience. This ambitious project exemplifies the BSCL's dedication to fostering talent, nurturing creativity, and creating spaces that promote learning, innovation, and cultural vibrancy within the city of Bareilly.





## COMMERCIAL COMPLEX AT RAILWAY JUNCTION ROAD: CONNECTING TRADITION, SHOPPING, AND CONVENIENCE

As the city progresses, its landscape must also change with the passage of time. The historic Tanga Stand area in Bareilly is set with an epic makeover with the construction of a brandnew commercial complex. The project, undertaken by Bareilly Smart City Limited, has transformed the site into a hub of business and commercial activity.

The newly constructed complex has several shops and large showrooms, that will provide local businessmen with a brand-new, dynamic space from which to conduct their business. At the same time, there are also enough office spaces for companies to establish their offices. The commercial complex will further provide a range of space options, which can cater to the needs of various businesses, from startups to established corporations. The complex, built in the heart of the city will turn the area into a hotspot for business activities and is expected to generate more revenue for the city.

The complex itself is state-of-the-art and

has excellent amenities. This has been a much-awaited step as the area which had been home to the old Tanga Stand during earlier times was ripe for development. BSCL realised the potential of this spot and consequently planned to develop it into a modernistic place of business and commercial activity.

A commercial complex typically houses a variety of businesses, which can include retail stores, offices, restaurants, and more. This diversification can help mitigate risks associated with economic downturns in any one industry.

The new commercial complex will also create job opportunities, both during the construction phase and for the businesses that occupy the space. This is expected to boost the local economy and offer more exciting employment opportunities.

The complex also comes with amenities such as parking facilities for two- and four-wheeled vehicles, security, and maintenance services that will make it more attractive to businesses and customers alike.

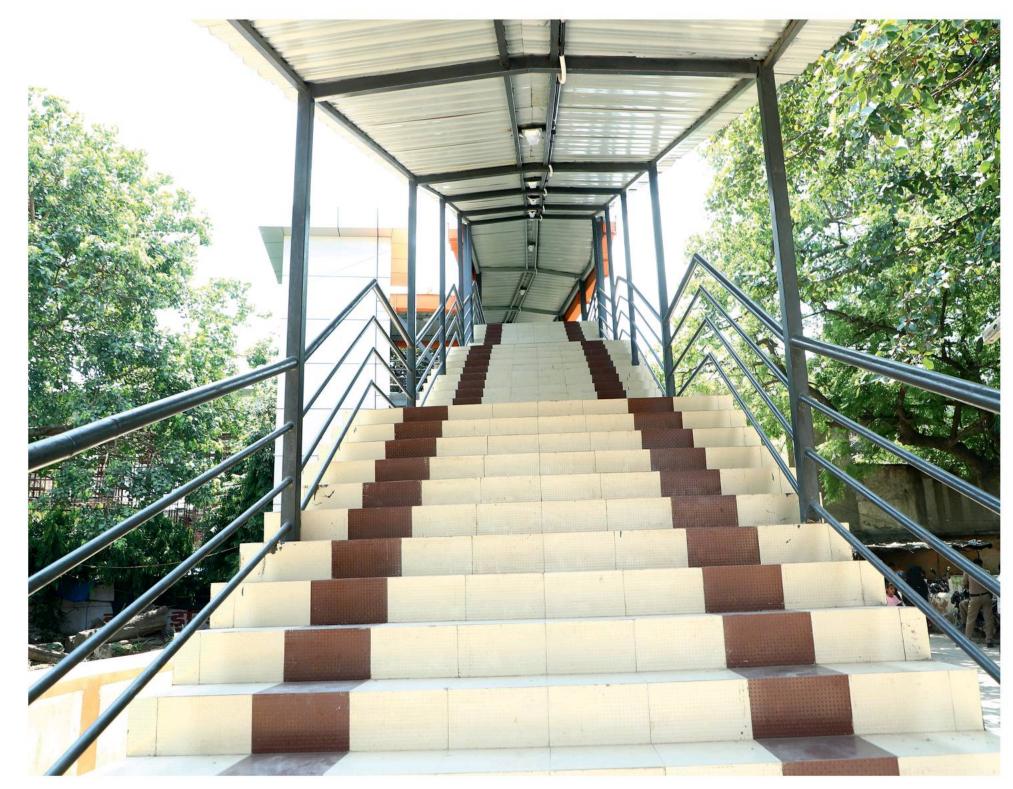
The centre will serve as a convenient onestop destination for a variety of businesses and services, contributing to local economic growth, improved community well-being, and the development of a vibrant retail and business hub in the heart of the city.

Thus, as we can see, the development of the commercial complex will provide the residents of Bareilly with a multitude of benefits, such as a diverse revenue stream, job opportunities, and increased property values. It's a convenient and centralised location for various businesses, ultimately stimulating economic growth, enhancing community convenience, and creating a dynamic retail and business environment.

This development with breathe new life into the city's iconic Tanga Stand area and usher in a new age of socio-economic development for the city. This ties in with BSCL's aim to usher in a new wave of economic growth and prosperity for Bareilly. The complex will stand tall as a shining symbol of Bareilly's bright new and promising future. It also represents an important step in the transformation of Bareilly into an urban metropolis.







## ENHANCING ACCESSIBILITY AND EFFICIENCY: FOOT-OVERBRIDGE AT DISTRICT HOSPITAL BAREILLY BY BSCL

Bareilly Smart City Limited is dedicated to improving the infrastructure and facilities in the city to enhance the quality of life for its residents. As part of its efforts, the BSCL has constructed a foot-overbridge (FOB) at the District Hospital Bareilly. With the hospital divided into two sections on either side of a busy road, the FOB plays a crucial role in ensuring easy movement of patients, as well as swift access for medical staff and doctors during medical emergencies.

The foot-overbridge at the District Hospital Bareilly serves as a vital link between the two sections of the hospital. It provides a safe and convenient passage for patients, eliminating the need to navigate through heavy traffic or cross the busy road. With the FOB in place, patients can move seamlessly between the different sections of the hospital, ensuring smoother transitions and efficient healthcare delivery. This significantly reduces the physical exertion

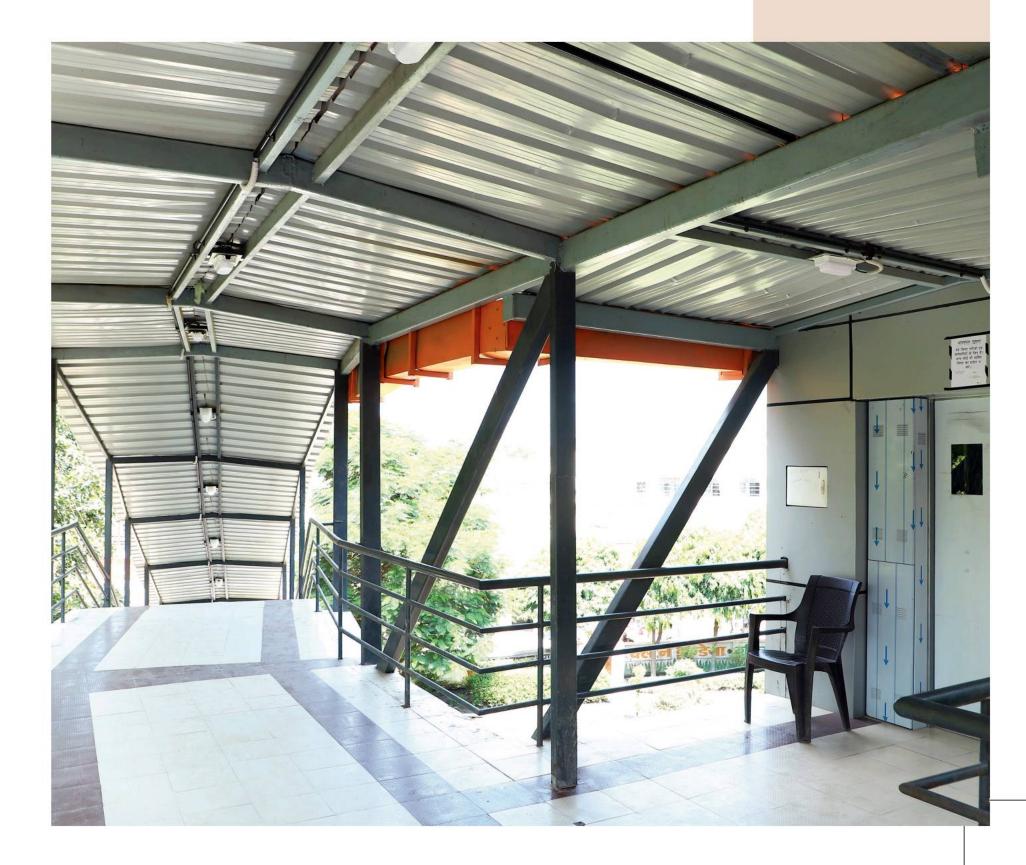
and stress experienced by patients, particularly those with limited mobility.

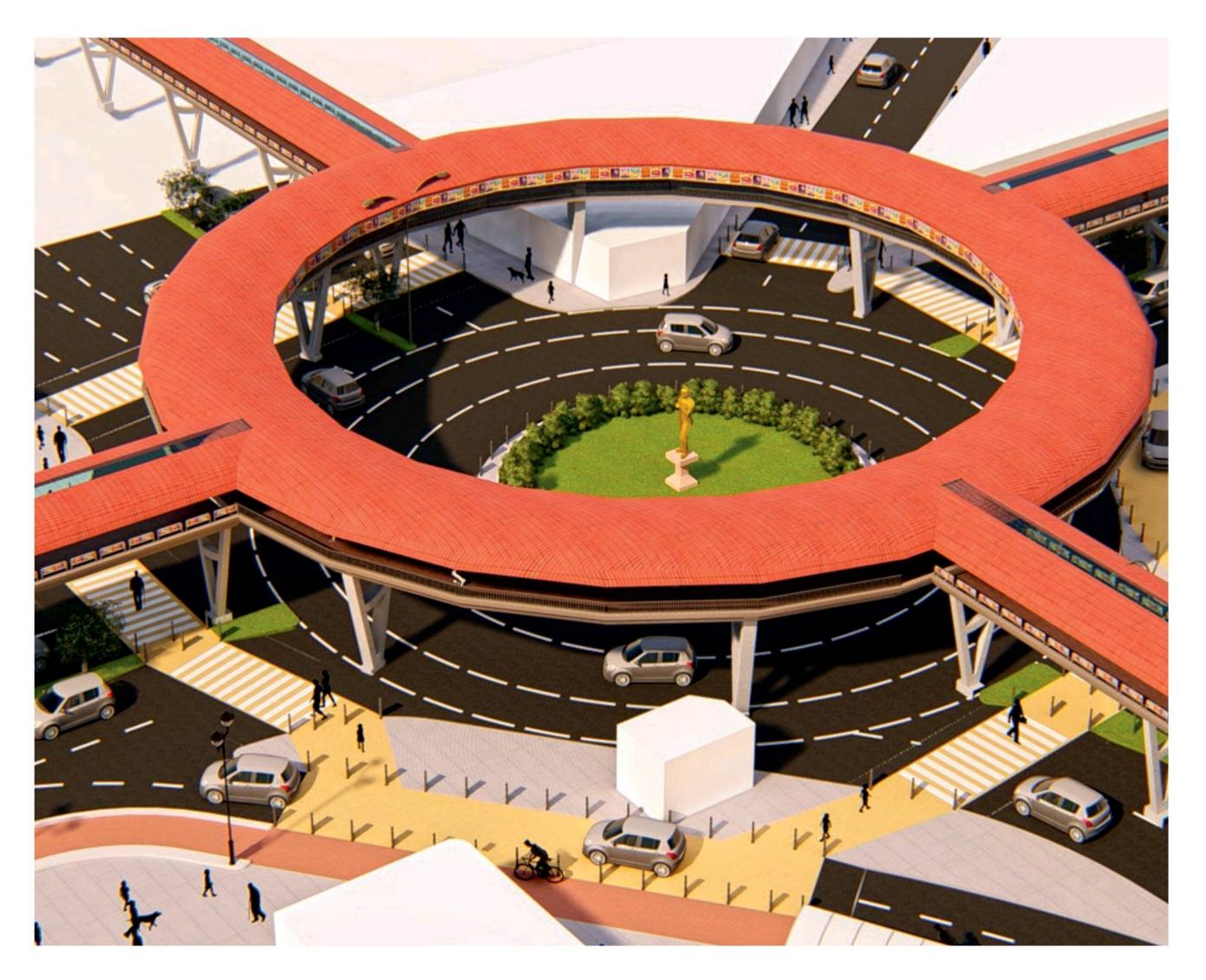
During medical emergencies, time is of the essence. The foot-overbridge at the District Hospital Bareilly plays a crucial role in facilitating the swift movement of medical staff and doctors to attend to emergency cases. The lifts are so designed that they can also accommodate stretchers of patients. The FOB provides a direct and unobstructed path, enabling medical personnel to reach the required section of the hospital quickly and efficiently. This prompt response time can make a significant difference in saving lives and providing critical care to patients in need.

By providing a dedicated passage for patients and medical staff, the foot-overbridge enhances safety within the hospital premises. It reduces the risk of accidents or delays caused by road traffic and ensures a seamless flow of movement. The FOB helps optimise the overall ef-

ficiency of hospital operations by minimising congestion and facilitating the smooth functioning of different departments. This streamlined movement contributes to a more organised and effective healthcare environment.

The construction of the foot-overbridge at the District Hospital Bareilly aligns with BSCL's commitment to promoting accessibility and inclusivity. The FOB ensures that all individuals, including those with mobility challenges or disabilities, can easily access the different sections of the hospital. It eliminates barriers and enhances the overall healthcare experience for patients, visitors, and medical personnel alike.





## CONNECTING PATHS, EMPOWERING COMMUNITIES: SKYWALK — A GATEWAY TO PEDESTRIAN ACCESSIBILITY AND COMMERCIAL PROSPERITY

Aiming to bring about commercial success, Bareilly Smart City Limited (BSCL) is embarking on a transformative project to enhance pedestrian connectivity and support local businesses by Skywalk. The construction of the Skywalk aims to create a seamless pathway connecting all four directions, enabling pedestrians to easily access public transport points. In addition to improving accessibility, this initiative by the BSCL also aims to empower local vendors by providing commercial spaces on the skywalk, ensuring maximum visibility to customers and fostering economic growth within the community.

The Skywalk project is a significant step to-

wards improving pedestrian connectivity in Bareilly. By connecting all four directions, including major transportation hubs, the skywalk will provide a convenient and accessible route for pedestrians to access all points of the area in minimum time. This initiative will encourage more people to opt for walking as a sustainable mode of transportation, reducing traffic congestion and promoting a healthier and greener environment.

A core objective of the Skywalk is to support local vendors and stimulate economic activity. BSCL aims to provide services to all sections of society, creating with a vision. The inclusion of commercial spaces along the skywalk

Skywalk aims to create a seamless pathway, enabling pedestrians to access public transport points. In addition to improving accessibility, this initiative by BSCL also aims to empower local vendors by providing commercial spaces on the skywalk

provides an opportunity for local businesses to set up kiosks and engage with customers directly. This platform not only empowers local entrepreneurs but also creates a vibrant marketplace experience for pedestrians. By supporting local vendors, the skywalk contributes to the economic growth of the community and fosters a sense of pride and ownership among local business owners.

One of the key benefits of the Skywalk is the maximum visibility it will offer to customers. By positioning the commercial kiosks on the skywalk, local businesses gain enhanced visibility and exposure to a large customer base. This strategic placement ensures that vendors receive maximum footfall and customers can easily explore and interact with the diverse range of offerings. The skywalk becomes a bustling hub of activity, attracting pedestrians and creating a thriving commercial atmosphere.

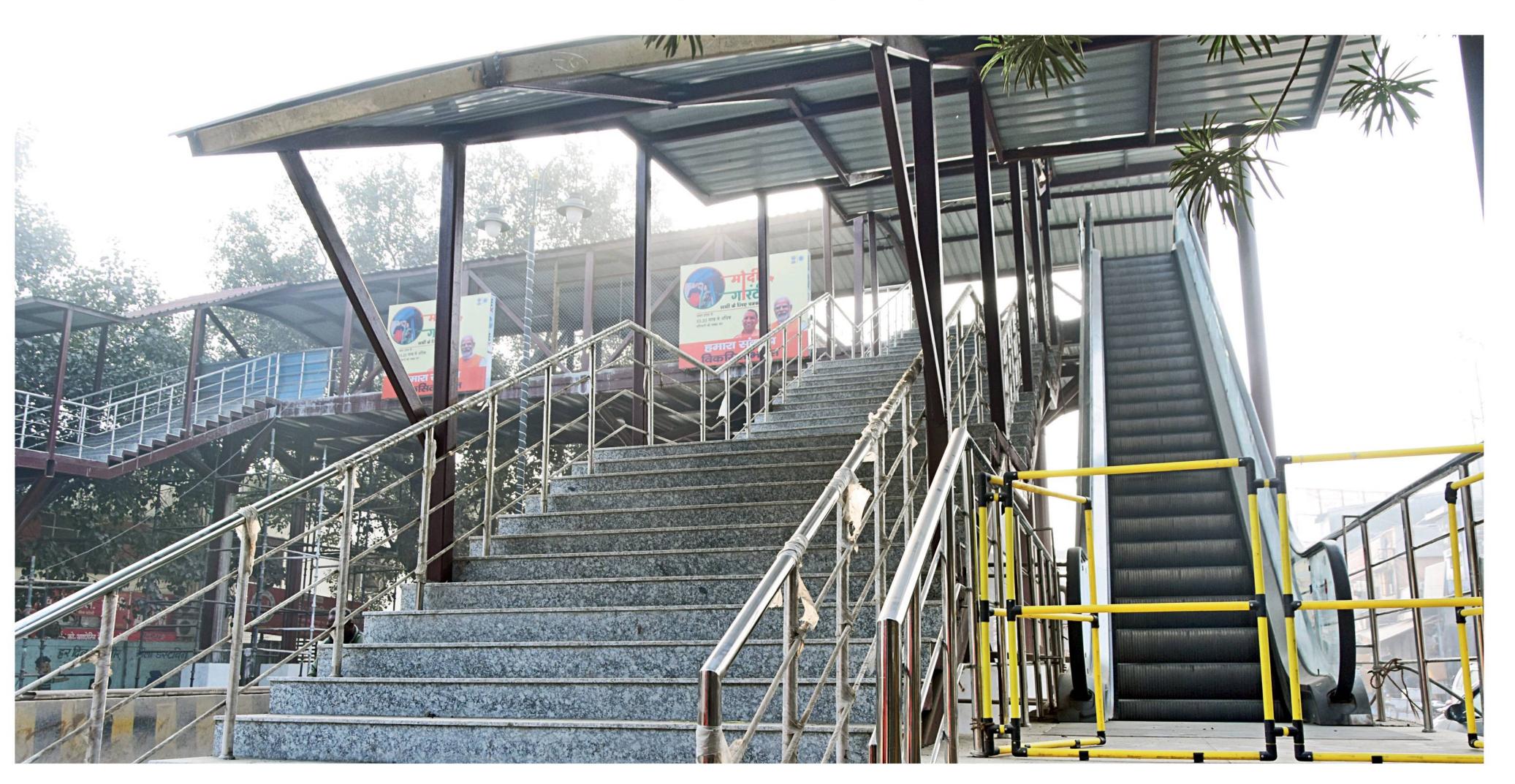


Safety and convenience are paramount in the design of the Skywalk. The elevated structure will ensure that pedestrians are safely separated from vehicular traffic, creating a secure and uninterrupted pathway. Lifts and escalators at the facility ensure smooth and safe movement for the physically challenged. Adequate lighting, well-placed signage, and surveillance systems are integrated to ensure the safety and comfort of pedestrians throughout the day. Additional amenities such as seating areas, restrooms, and accessibility features further enhance the convenience and inclusivity of the skywalk.

The Skywalk serves as more than just a transportation link — it becomes a platform for community engagement. By creating a pedestrian-friendly environment, the skywalk

encourages people to explore, interact, and connect with their surroundings. It becomes a gathering space, fostering a sense of community and creating opportunities for social interactions. The vibrant atmosphere attracts residents and visitors alike, turning Patel Chauk into a vibrant and lively destination.

The development of the Skywalk by the BSCL represents a significant stride towards improving pedestrian connectivity, empowering local businesses, and fostering community engagement. By providing seamless access to public transport points from all four directions, the skywalk promotes sustainable transportation choices and reduces congestion. The inclusion of commercial spaces offers local vendors an opportunity to thrive and showcase their products to a broader customer base. Through its design, the skywalk prioritises safety, convenience, and community engagement, contributing to a more vibrant and liveable urban environment in Bareilly. The Skywalk exemplifies the BSCL's commitment to enhancing pedestrian infrastructure and creating opportunities for economic growth, ensuring a brighter and more prosperous future for the community.



ALLEVIATING TRAFFIC CONGESTION:
KUTUBKHANA FLYOVER — ENHANCING
CONNECTIVITY FROM KOTWALI POLICE
STATION TO KOHARAPEER JUNCTION

In response to the growing traffic congestion in the city and to improve the overall connectivity in Bareilly, BSCL has undertaken the construction of the Kutubkhana Flyover.

This significant project by Bareilly Smart City Limited (BSCL) aims to address the challenges posed by the narrow passages and heavy traffic jams in the old market area of Kutubkhana. The flyover will provide a two-lane elevated corridor from Kotwali Police Station to Kohanapeer Junction via Kutubkhana Road, offering a seamless and efficient transportation route.

The situation around Ghantaghar is characterised by heavy traffic congestion due to the narrow passages and limited road space. The Kutubkhana Flyover project is designed to eliminate these problems by providing a dedicated elevated corridor. By separating vehicular traffic from the bustling market area, the flyover will significantly reduce traffic congestion and ensure smoother traffic flow, benefiting both commuters and local businesses.

One of the key objectives of the Kutubkhana Flyover project is to enhance connectivity
and accessibility in Bareilly. By connecting the
major landmarks of Kotwali Police Station and
Koharapeer Junction, the flyover will provide a
seamless link between civil lines and DD Puram area. This improved connectivity will enable easier access to residential, commercial,
educational centres and medical centres enhancing the overall convenience for commuters and residents alike.

The elevated structure will separate pedestrians and vehicular traffic, ensuring a safer en-



vironment for all road users. Additionally, the flyover will feature appropriate lighting, signage, and road markings, enhancing visibility and ensuring a smoother flow of traffic. These safety measures will contribute to a more efficient transportation system.

The Kutubkhana Flyover will also significantly reduce travel time for commuters traveling between Kotwali Police Station and Koharapeer Junction. By providing a direct and unobstructed route, the flyover will minimise delays caused by traffic congestion and contribute to a more efficient transportation network. This reduction in travel time will not only improve the daily commute for individuals but also positively impact the economic activities in the area.

The Kutubkhana Flyover project also takes into consideration urban aesthetics and environmental sustainability. The flyover design will blend seamlessly with the surrounding

architectural style while incorporating landscaping elements. The project will also adhere to environmental standards by implementing measures to minimise noise and air pollution, contributing to a more sustainable and liveable urban environment.

The construction of the Kutubkhana Flyover is a significant step taken by the BSCL to alleviate traffic congestion and improve connectivity. By providing a two-lane elevated corridor from Kotwali Police Station to Koharapeer Junction via Kutubkhana Road, the flyover will enhance the overall transportation network and offer a smoother travel experience for commuters. The project's focus on safety, efficiency, and urban aesthetics showcases the commitment of Bareilly to develop a smarter and more sustainable city. The flyover will serve as a landmark infrastructure that positively impacts the lives of residents, businesses, and visitors, making Bareilly a more accessible and vibrant city.





## TRANSFORMING THE ROAD UNDER SHYAMGANJ FLYOVER: BSCL'S VISION FOR AESTHETIC APPEAL AND SUSTAINABLE DEVELOPMENT

Bareilly Smart City Limited (BSCL) is further dedicated to creating visually captivating and sustainable public spaces. With a focus on the road under the Shyamganj Flyover, BSCL has embarked on a transformative project that involves several key elements. The development of the road, including the installation of proper lighting, the introduction of green grass, and vibrant graffiti, have contributed to enhancing the overall ambience and promoting a sense of community pride in Bareilly.

The development of the road under the Shyamganj Flyover aligns with the BSCL's commitment to sustainable development. The installation of proper lighting, green grass, and graffiti contributes to a more eco-friendly and aesthetically pleasing urban landscape. Moreover, the project emphasises community engagement and participation. BSCL actively seeks input and feedback from the local community, ensuring that their voices and preferences are incorporated into the development plans. This collaborative approach fosters a

sense of ownership and pride among residents, creating a stronger bond between the people and their surroundings.

BSCL also recognises the importance of proper lighting in creating a safe and secure environment for residents and commuters. Under the Shyamganj Flyover, the road will be adorned with strategically placed streetlights to ensure adequate illumination during the night. The well-lit environment enhances visibility, reduces the risk of accidents, and instills a sense of confidence among pedestrians and motorists alike.

As part of the development project, BSCL prioritises the introduction of green grass along the road under the Shyamganj Flyover. This addition brings a touch of nature and freshness to the urban landscape. The lush green grass not only enhances the aesthetic appeal but also contributes to a healthier and more sustainable environment. It provides a pleasant visual contrast to the concrete surroundings, creating a serene and welcoming

atmosphere for pedestrians and passers-by.

To infuse artistic vibrancy and showcase the local culture, BSCL encourages the use of vibrant graffiti along the road under the Shyamganj Flyover. Graffiti, when thoughtfully executed, serves as a powerful form of creative expression. It adds colour, life, and personality to the urban space, reflecting the cultural identity of Bareilly. The inclusion of graffiti not only enhances the visual appeal but also creates an engaging and interactive environment, sparking conversations and inspiring creativity.

under the Shyamganj Flyover reflects its commitment to creating visually appealing, safe, and sustainable public spaces. Through proper lighting, introduction of green grass, and vibrant graffiti, the project enhances the overall ambience, making the area more inviting and enjoyable for residents and visitors. The incorporation of these elements not only adds aesthetic value but also promotes community engagement and cultural expression. BSCL's vision exemplifies its dedication to creating a vibrant and liveable city that fosters community pride, creativity, and a sustainable future for Bareilly.

# EXTERNAL DEVELOPMENT OF NAGAR NIGAM BY BSCL: ENHANCING AESTHETICS

Bareilly Smart City Limited (BSCL) understands the significance of the Nagar Nigam as a key administrative hub and a prominent landmark in the city. As part of its urban development initiatives, BSCL has undertaken the external development of the Nagar Nigam to enhance its aesthetics, functionality, and overall appeal.

BSCL has focused on improving the exterior appearance of the Nagar Nigam to create an impressive and visually appealing structure. This includes architectural enhancements such as facade improvements, planters, pathways and parking facilities. The aim is to create a modern and aesthetically pleasing environment that reflects the importance of Nagar Nigam and adds to the city's architectural landscape.

To create a welcoming and pleasant environment around the Nagar Nigam campus, BSCL has undertaken extensive land-scaping and greenery initiatives. This includes development of well-maintained gardens, installation of ornamental plants and flowers, and the creation of green spaces.

BSCL has also focused on improving the functionality of the Nagar Nigam to ensure smooth operations and efficient service delivery. This includes the installation of modern signage systems to facilitate way-finding and provide clear directions to visitors. Additionally, the campus has been equipped with advanced lighting systems to enhance visibility and safety, particularly during the evening hours. These functional upgrades aim to create a user-friendly and efficient environment. The external development of the Nagar Nigam includes measures to improve accessibility for all individuals. This involves the installation of ramps, handrails, construction of entry and exit gates, and other accessibility features to ensure easy access for people with disabilities.

The aesthetic enhancements, landscaping efforts, functional upgrades, and focus on accessibility contribute to transforming the area into a symbol of civic pride. By investing in the external development of the Nagar Nigam, BSCL aims to create an ambience that reflects the importance of local governance and provides a conducive environment for both staff and visitors.







## CONVENIENT AND ACCESSIBLE: SPECIAL VENDING ZONE BY BSCL FOR FRESH PRODUCE

Acting as a catalyst for change, Bareilly Smart City Limited (BSCL) is further committed to creating a seamless and convenient shopping experience for residents. As part of its ongoing initiatives, the BSCL has set up a special vending zone for vegetable vendors and fruit sellers near Allen Club. This dedicated space provides a hassle-free and dedicated place for locals to purchase fresh produce. With its easily approachable location and dedicated single entry, the Allen Club Special Vending Zone has become a go-to destination for residents seeking high-quality fruits and vegetables.

The vending zone serves as a dedicated place for residents to buy fresh vegetables and fruits without any inconvenience. Situated near Allen Club, the zone is easily approachable for locals, ensuring they can conveniently access a wide range of fresh produce. The dedicated nature of the vending zone eliminates the need to search for vendors in various locations, making the shopping experience more efficient and enjoyable for residents.

To facilitate a smooth flow of shoppers and ensure efficient crowd management, the Allen Club Special Vending Zone features a dedicated single entry. This design helps minimise congestion and maintain an organised environment for both vendors and customers. With a clearly marked entry point, shoppers can navigate the zone easily, saving time and effort. The dedicated single-entry system ensures a streamlined shopping process and enhances the overall experience for everyone involved.

The establishment of the special vend-

ing zone near Allen Club reflects BSCL's commitment to supporting local vendors and promoting their economic growth. The zone provides a platform for vendors to showcase their products and reach a wider customer base. By bringing vendors together in one location, the BSCL fosters a sense of community and cooperation among local businesses. Supporting local vendors not only strengthens the local economy but also encourages sustainable business practices.

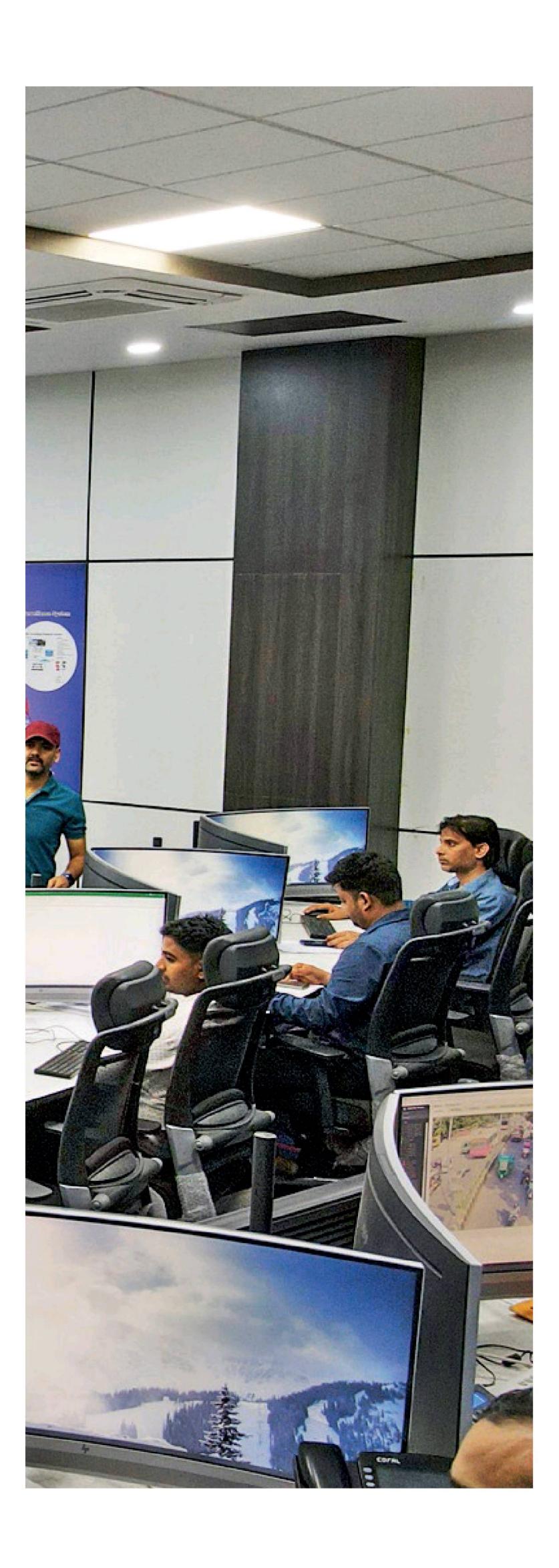
Residents can expect convenience and quality when shopping at the Allen Club Special Vending Zone. Vendors in the zone adhere to stringent quality standards to ensure that customers receive the freshest and highest-quality produce. The BSCL maintains regular monitoring and quality checks to guarantee the freshness and safety of the products available. By providing a reliable source of fresh produce, the zone promotes healthy living and encourages residents to make nutritious choices.

Established by BSCL, it offers a dedicated and convenient space for residents to purchase fresh vegetables and fruits. With its easily approachable location near Allen Club and dedicated single entry, the zone ensures a hassle-free shopping experience for locals. By supporting local vendors and maintaining high-quality standards, BSCL contributes to the economic growth of the community while promoting healthy living. The Special Vending Zone stands as a testimonial to BSCL's commitment to creating convenient and accessible daily shopping options for residents.



The vending zone serves as a place for residents to buy fresh vegetables and fruits without any inconvenience.
Situated near Allen Club, the zone is easily approachable for locals





Discover how Bareilly is becoming smarter and more efficient in city planning and management with the adoption of smarter technologies. We will also see how the installation of e-kiosks and ICCC's modules like RLVD, ANPR, PTZ, ITMS and VMDS seek to provide the public with easy access to key services

# Adapting to Smarter Technologies

# INTEGRATED COMMAND CONTROL CENTRE (ICCC): ENHANCING CITY OPERATIONS WITH ADVANCED TECHNOLOGIES BY BSCL

Bareilly Smart City Limited (BSCL) is committed to implementing state-of-the-art technologies for effective city management. As part of its efforts, BSCL has established an Integrated Command Control Centre (ICCC) equipped with a control room and data centre. The ICCC acts as a nerve centre for monitoring, managing, and responding to various aspects of urban operations. This article highlights the key components and functionalities of the ICCC implemented by BSCL.

The Control Room serves as the central hub

of the ICCC, housing advanced monitoring and control systems. It is staffed by trained personnel who oversee real-time operations and coordinate responses to various events. The Data Centre hosts the infrastructure required for processing, storing, and analysing the massive amount of data generated by the city's surveillance and monitoring systems. The Control Room and Data Centre form the backbone of the ICCC, enabling efficient decision-making and facilitating data-driven city management.

BSCL has implemented an Intelligent Traffic Management System at 21 key junctions across the city. This system includes a comprehensive network of 84 Red Light Violation Detection (RLVD) cameras, 168 Automatic Number Plate Recognition (ANPR) cameras, and 21 Pan-Tilt-Zoom (PTZ) cameras. These cameras enable real-time monitoring of traffic flow, violation detection, and automated number plate recognition. The ITMS helps optimise traffic management, enhance road safety, and improve overall traffic efficiency in the city.

BSCL has deployed a robust surveillance network across 140 locations in Bareilly. This network consists of 583 fixed cameras, 280 PTZ cameras, and 25 cameras capable of capturing 4K resolution footage. The surveillance cameras are strategically placed at key points, providing comprehensive coverage of public spaces, critical infra-structure, and high-traffic areas. This extensive surveillance agencies enhances public safety, assists law enforcement agencies, and helps prevent and investigate crimes in the city.

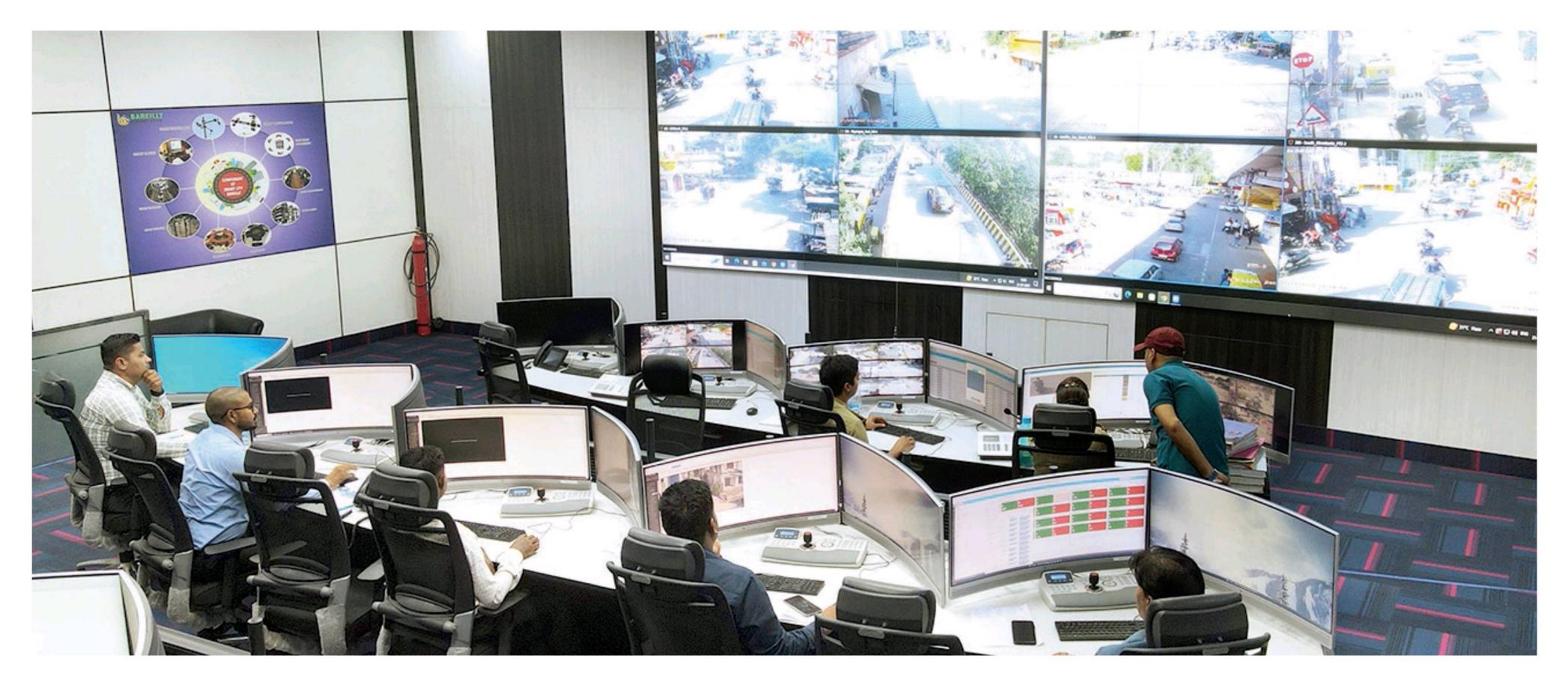
To effectively manage and analyse the vast amount of video data, BSCL has further implemented a Video Management and Display System. The VMDB allows for centralised storage, retrieval, and analysis of video footage from the surveillance cameras deployed across the city. This system enables quick search and playback of recorded video, facilitates event reconstruction, and supports investigations by law enforcement agencies.

BSCL has integrated various advanced technologies to enhance city operations and public safety. This includes the deployment of environmental sensors to monitor air quality, noise levels, and weather conditions. Additionally, speed violation detection systems help enforce speed limits and ensure road safety. The implementation of 25 Public Address (PA) systems and 6 emergency call boxes enhances communication and facilitates emergency response in public spaces.

BSCL has also leveraged drone technology for aerial surveillance and monitoring. Three drone cameras equipped with advanced imaging capabilities are utilised for

aerial inspections, crowd management, and situational awareness. Drone cameras provide valuable visual data and contribute to efficient decision-making during emergencies or large-scale events.

The establishment of the Integrated Command Control Centre (ICCC) by BSCL, with its Control Room, Data Centre, and advanced technological systems, demonstrates the city's commitment to efficient and data-driven urban management. The ITMS, extensive surveillance network, video management system, environmental sensors, speed violation detection, PA systems, emergency call boxes, and drone cameras all contribute to enhanced public safety, improved traffic management, and efficient city operations. The ICCC serves as a key resource for monitoring, analysing, and responding to various urban challenges, enabling BSCL to create a smarter, safer, and more livable city for its residents.









## E-KIOSKS: TRANSFORMING CITIZEN SERVICES

To enhance citizen services and streamline access to information, Bareilly Smart City Limited (BSCL) has taken a significant step by setting up e-kiosks across the city. These e-kiosks serve as digital touchpoints, providing residents with convenient access to a wide range of services and information.

The implementation of e-kiosks by BSCL in Bareilly simplifies the process of availing government services. These interactive terminals act as self-service hubs, allowing residents to access various municipal services such as bill payments, property tax information, birth and death certificates, and much more. By consolidating these services into a single platform, the e-kiosks eliminate the need for residents to visit multiple offices, reducing paperwork and saving valuable time.

The e-kiosks in Bareilly provide a comprehensive

range of services to cater to diverse citizen needs. Whether it's applying for licenses, registering complaints, or tracking the progress of service requests, residents can conveniently complete these tasks at the e-ki-osks. The user-friendly interface of the e-kiosks guides users through the process, making it accessible to citizens of all ages and technological literacy levels.

BSCL's initiative to set up e-kiosks in Bareilly ensures that citizens can access services and information easily and conveniently. The strategically placed kiosks are accessible throughout the city, enabling residents to avail the services at their convenience without the need for long queues or multiple visits. The touch-screen interface of the e-kiosks simplifies the user experience, making it accessible to a wide range of users, including those with limited technological familiarity.

The establishment of e-kiosks fosters citizen engagement by providing residents with direct access to information and feedback channels. The kiosks serve as a platform for disseminating important announcements, civic project updates, and public notices, keeping citizens informed and engaged. Additionally, residents can provide feedback and suggestions and register complaints through the e-kiosks, ensuring a two-way communication channel between BSCL and the citizens of Bareilly.

The introduction of e-kiosks not only simplifies access to services but

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The establishment of e-kiosks by BSCL marks a significant milestone in improving citizen services and engagement. E-kiosks simplify service delivery, provide comprehensive offerings, and foster citizen empowerment

also promotes digital literacy among citizens. By interacting with the touch-screen interface and digital platforms, residents gain exposure to technology and develop essential digital skills. This promotes inclusivity and empowers individuals to navigate the digital landscape, enhancing their overall digital literacy and preparing them for a technology-driven future.

The establishment of e-kiosks in Bareilly by BSCL marks a significant milestone in improving citizen services and engagement. The e-kiosks simplify service delivery, provide comprehensive offerings, and foster citizen empowerment and engagement. By promoting convenience, accessibility, and digital literacy, BSCL's initiative enhances

the overall citizen experience, making Bareilly a more connected and citizen-centric smart city. As the e-kiosks continue to facilitate efficient access to services and information, they stand as a testament to BSCL's commitment to leveraging technology for the betterment of the city and its residents.

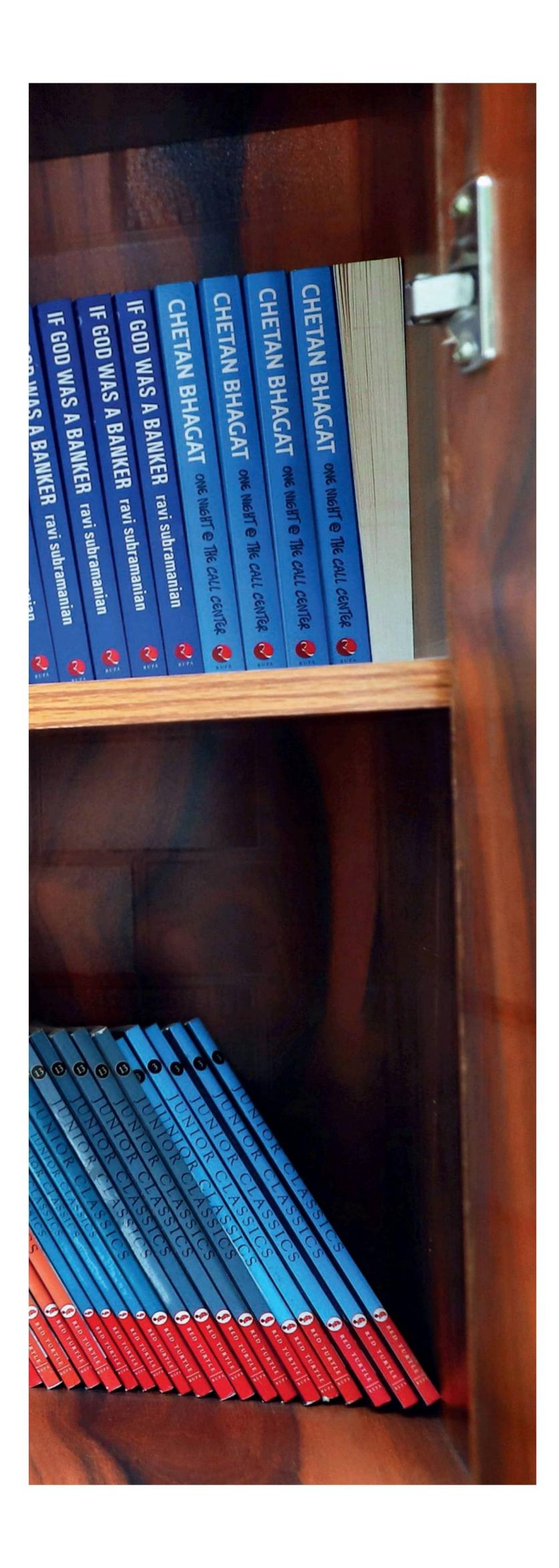
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From retrofitting government schools with smart classes to renovating and revitalising premier educationalinstitutions and libraries, BSCL has undertaken a slew of initiatives to secure the success of Bareilly's future generations

# Creating Smart Education Facilities

easures are being taken to upgrade the educational facilities and provide city students with a brighter future.

#### RETROFITTING OF GOVERNMENT SCHOOLS WITH SMART CLASSES

Recognising the importance of technology in education and its potential to revolutionise learning, Bareilly Smart City Limited (BSCL) has undertaken a remarkable initiative to retrofit government schools with Smart Class infrastructure. This progressive move aims to enhance the quality of education by leveraging e-shiksha IT (Information Technology) in classrooms.

The retrofitting of government schools with

smart class infrastructure signifies a shift towards technology-enabled education. With smart classrooms equipped with interactive whiteboards, audio-visual aids, and digital content, students can experience immersive and engaging learning environments. The integration of e-shiksha IT empowers students to explore additional educational resources, multimedia content, and interactive learning modules, enabling them to grasp complex concepts more effectively.

BSCL's retrofitting initiative aims to bridge the educational divide by ensuring equal access to modern learning resources for students from all backgrounds. By introducing smart class infrastructure in government schools, the initiative democratises education, providing students with an opportunity to experience technology-driven learning





regardless of their socioeconomic status. This inclusivity promotes equality and paves way for integration of smart class infrastructure in government schools. It not only benefits students but also empowers teachers to deliver quality education. Smart classrooms enable teachers to adopt innovative teaching methods, personalise lessons, and cater to diverse learning styles.

With multimedia content, simulations, and real-time data, teachers can create engaging and interactive lessons, fostering a dynamic and participatory learning environment that enhances student comprehension and engagement.BSCL's retrofitting program equips students with essential digital literacy skills necessary for success in the digital age. By immersing students in technology-rich classrooms, they de-

velop proficiency in using digital tools and resources, preparing them for a technology-driven society. Through e-shiksha IT, students acquire critical thinking, problem-solving, collaboration, and digital communication skills, which are essential for their future careers and lifelong learning.

The retrofitting of government schools with Smart Class infrastructure has a positive impact on educational outcomes. Studies have shown that technology-enabled classrooms enhance student engagement, knowledge retention, and academic performance. The interactive nature of smart classrooms fosters active learning, enabling students to develop a deeper understanding of the subject matter. By integrating e-shiksha IT, BSCL's initiative contributes to improved educational

outcomes in Bareilly.

BSCL's retrofitting programme, focusing on government schools and Smart Class infrastructure, represents a significant stride towards transforming the education landscape in Bareilly. By leveraging technology and e-shiksha IT, students gain access to immersive learning experiences, bridging the educational divide and promoting inclusivity.

The integration of Smart Class infrastructure enriches teaching practices, fosters digital literacy, and equips students with future skills. As BSCL continues to invest in educational initiatives, the retrofitting programme serves as a testament to the organisation's commitment to empowering students, nurturing their potential, and providing them with a strong foundation for success in the digital era.

### TRANSFORMING EDUCATION WITH SMART CLASSES: EMPOWERING THE FUTURE GENERATIONS

Smart Class is a significant initiative undertaken by BSCL to revolutionise education in the city. The BSCL recognises the importance of integrating technology in classrooms to enhance teaching methodologies, improve learning outcomes, and prepare students for the digital age. Through the implementation of Smart Class IT, the BSCL aims to create modern and interactive learning environments that empower students and teachers with the tools and resources needed for a comprehensive and engaging educational experience.

#### FEATURES OF SMART CLASS BY BSCL

- es on developing the necessary infrastructure to facilitate smart classes in educational institutions across Bareilly. This includes equipping classrooms with interactive whiteboards, projectors, audio-visual aids, and internet connectivity, enabling teachers to leverage technology effectively.
- Digital Content and Resources: The BSCL provides digital content and resources to support Smart Class implementation. This includes educational videos, e-books, simulations, and interactive modules that align with the curriculum. These resources enhance teaching and enable students to access a wide range of learning materials for self-study and research.
- Teacher Training and Capacity Building:
  The BSCL conducts training proggrammes
  and workshops to empower teachers with
  the skills and knowledge required to effectively utilise Smart Class tools and resources. These capacity-building initiatives
  enable teachers to adapt their teaching
  methodologies, create interactive lessons,

- and integrate technology seamlessly into their classrooms.
- Interactive Learning Experience: It promotes interactive and engaged learning experience for students. Through the use of multi-media content, interactive exercises, and real-time assessments, students are actively involved in the learning process, fostering a better understanding of concepts, critical thinking, and problem-solving skills.
- Monitoring and Evaluation: BSCL further monitors the implementation and im-pact of Smart classes in educational institutions. Regular evaluations and feed-back mechanisms help identify challenges and areas for improvement, enabling BSCL to provide necessary support and refine the program to maximise its effectiveness.

#### DISCOVER THE KEY BENEFITS OF SMART CLASSES

■ Improved learning outcomes: Smart classes enhance student engagement, comprehension, and retention of infor-



With continued support from BSCL, Smart Classes are set to play a crucial role in enhancing the quality of education and empowering students and teachers across different educational institutions in Bareilly

- mation, resulting in improved learning outcomes. The interactive and multimedia-rich environment motivates students to actively participate and enhances their understanding of complex concepts.
- Digital literacy and skills development:

  Smart classes equip students with digital literacy skills and the technological proficiency necessary for the digital age.

  Students gain hands-on experience with digital tools, online research, and collaboration, preparing them for future academic and professional endeavours.
- Access to quality education: By implementing Smart Class IT, BSCL ensures that students have access to quality education that is aligned with modern teaching and technological advancements. Smart classes bridge the digital divide, providing equal opportunities for students to benefit from digital resources and interactive learning.
- Teacher empowerment: Smart classes empower teachers with innovative teaching methods and resources, enabling them to deliver engaging and effective lessons. These classes promote professional growth, enhance instructional capabilities, and encourage creativity.

Smart classes by BSCL have brought about a paradigm shift in the education landscape of Bareilly. Through the integration of technology in classrooms, BSCL is creating a conducive environment for teaching and learning, fostering student engagement, and preparing them for the digital era. The focus on infrastructure development, digital content generation, teacher training, and monitoring ensures that the implementation of Smart Class is effective and sustainable.

#### **ELEVATING EDUCATION: BSCL'S RENOVATION** OF GIC AND GGIC COLLEGES

There's more as Bareilly Smart City Limited (BSCL) continues to demonstrate its commitment to empowering education by undertaking a transformative project to renovate the Government Inter College (GIC) and the Government Girls' Inter College (GGIC) in the city. This initiative aims to revitalise these prestigious educational institutions, providing students with modern and progressive learning environments. The renovation project at GIC and GGIC colleges focuses on upgrading their infrastructure to align with contemporary educational standards.

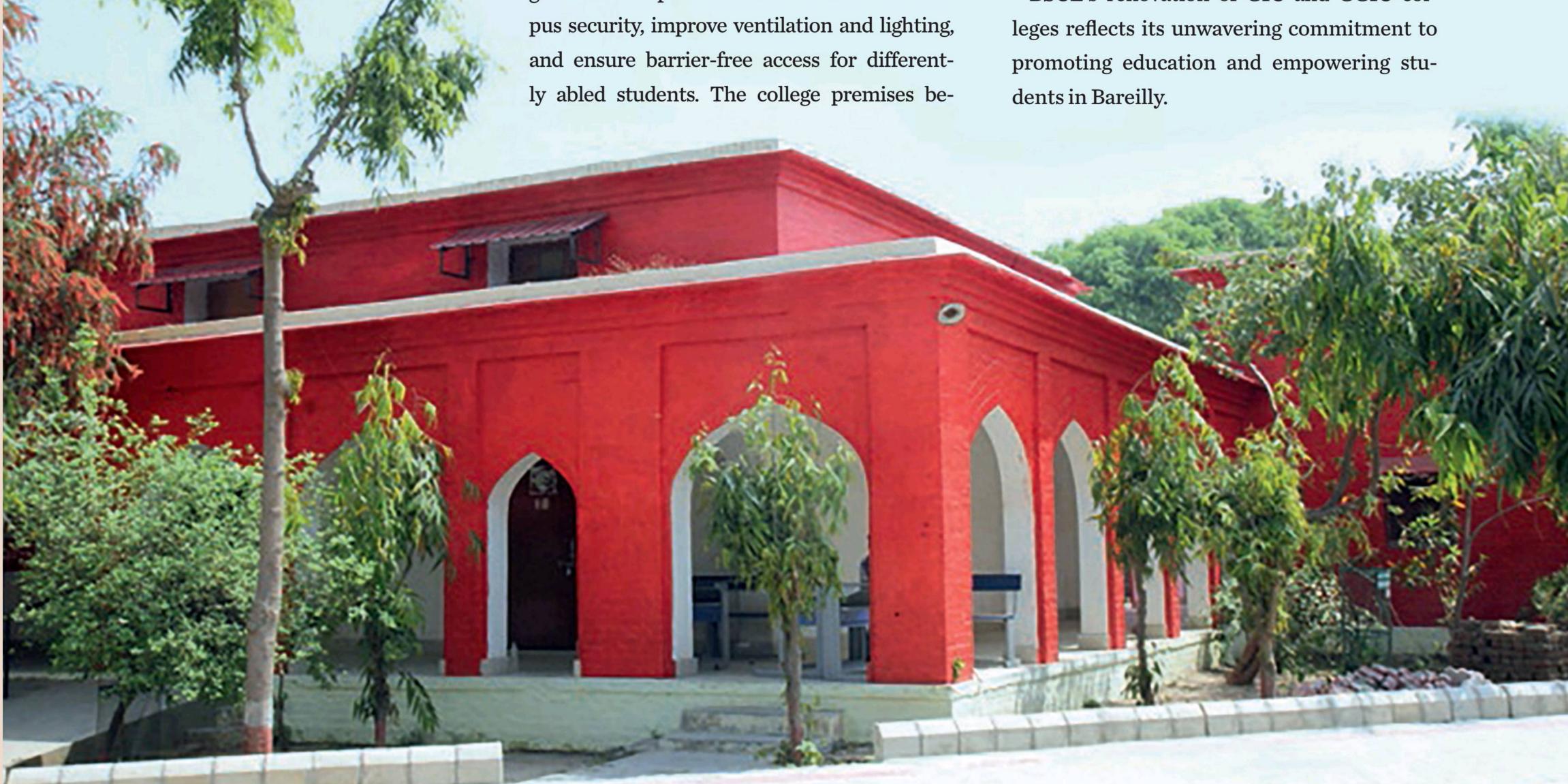
BSCL ensures that classrooms, laboratories, libraries, and administrative areas are refur-

bished with modern amenities and technology. The improved infrastructure fosters an atmosphere of excellence, inspiring students to excel academically and engage more actively in their studies. As part of the renovation, BSCL equips GIC and GGIC colleges with cutting-edge facilities and resources. This includes state-of-theart laboratories, advanced technology in classrooms, enriched libraries with diverse study materials, and recreational spaces. Students gain access to practical learning experiences and modern educational tools, enhancing their understanding of subjects and preparing them for real-world challenges.

BSCL's renovation project prioritises creating a safe and inclusive learning environ-ment for students at GIC and GGIC colleges. The upgrades encompass measures to enhance camcome conducive to learning, providing students with the confidence to explore their potential without any hindrances.

BSCL facilitates training programmes, workshops, and professional development initiatives for teachers. Empowered faculty members can impart high-quality education, adopt innovative teaching methods, and nurture the talents and aspirations of their students effectively. BSCL's efforts to renovate GIC and GGIC colleges extend beyond the institutions themselves, impacting the entire educational landscape of Bareilly. The upgraded colleges serve as symbols of progress and encourage other educational institutions to aspire to similar standards. As students and faculty benefit from the improvements, the local community also witnesses positive changes through increased educational opportunities and a thriving learning ecosystem.

BSCL's renovation of GIC and GGIC col-



## REVITALISING EDUCATION: RENOVATION OF MAULANA AZAD INTER COLLEGE

Maulana Azad College is a prominent educational institution that has been a beacon of knowledge and learning in the region. Named after Maulana Abul Kalam Azad, a renowned freedom fighter and the first Education Minister of independent India, the college holds a significant historical and academic position. It offers a wide range of undergraduate and postgraduate courses in various disciplines, including arts, science, and commerce. Known for its commitment to providing quality education and fostering holistic development, Maulana Azad College has played a pivotal role in shaping the academic and cultural landscape of Bareilly and continues to be a respected institution for students seeking academic excellence and personal growth.

Bareilly Smart City Limited seeks to upgrade the existing facilities at the college and has undertaken extensive restoration work here. This includes the full-scale renovation of the ground floor and the first floor. This further entails the development of 6 full-scale class-

By investing in education,
BSCL is paving the way for a
brighter future for students
in Bareilly and strengthening
the overall educational
landscape of the city

rooms and laboratories. This development will restore the college to its former glory and also enable its students to study and ex-periment amidst world-class facilities.

Over time, buildings and facilities at educational institutions had deteriorated due to wear and tear. Renovation allows for the repair and maintenance of these structures, ensuring they are safe and conducive to learning.

A well-maintained and modernized campus creates a more inspiring and comfortable learning environment for students and educators. Updated classrooms, libraries, laboratories, and recreational areas improve the overall quality of education. That's exactly what BSCL accomplished with the renovations at Maulana Azad College.





## EMPOWERING KNOWLEDGE: BSCL'S LIBRARY INITIATIVE

Bareilly Smart City Limited (BSCL) has also taken a significant step towards promoting literacy, community development and education with its commendable initiative of maintaining the library which was set up by Nagar Nigam Bareilly. The library is now being maintained by the BSCL, bringing in a lot of benefits to the residents of Bareilly and contributing to foster a culture of learning and intellectual growth within the community.

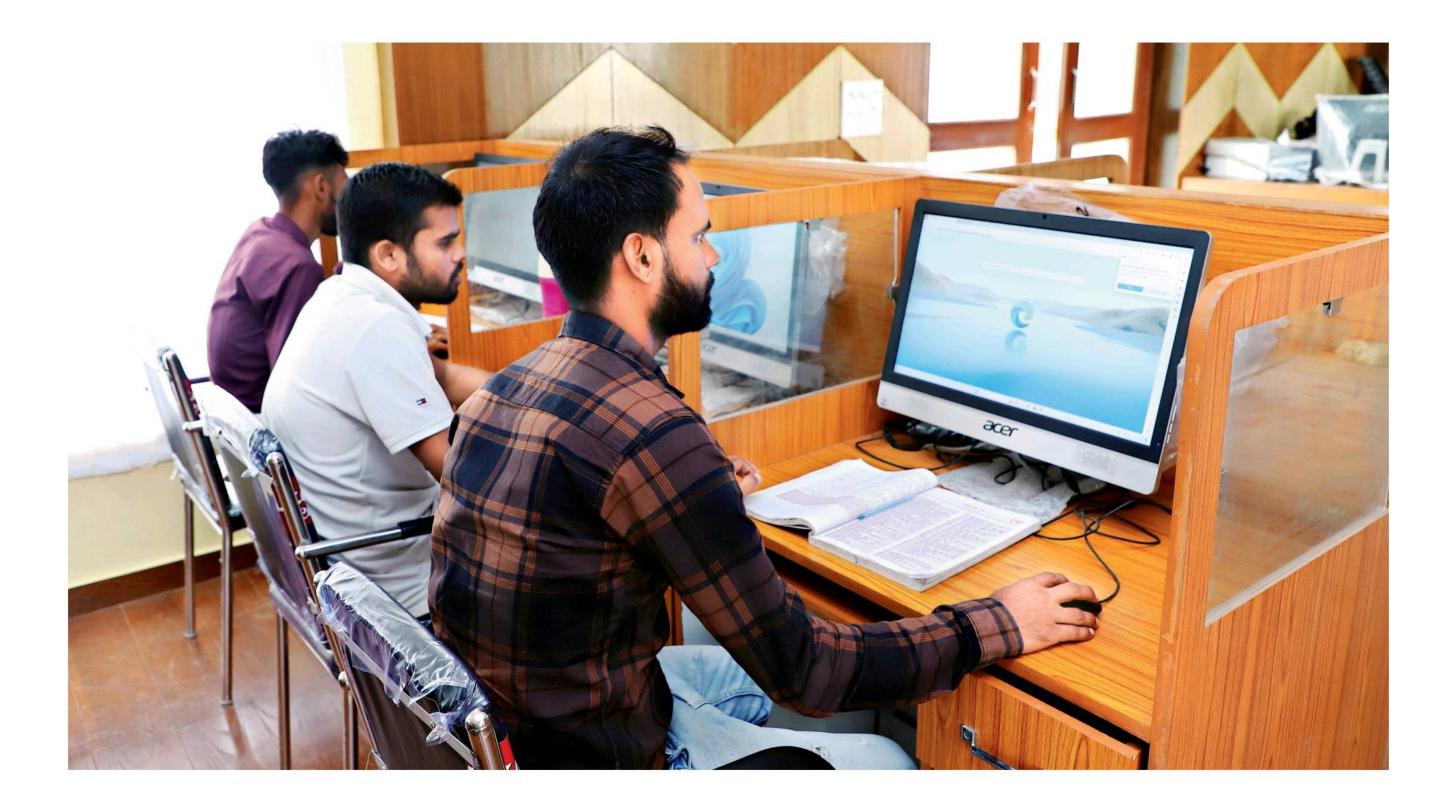
The library set up by the BSCL serves as a hub of knowledge, offering a wide range of books, periodicals, reference materials, and digital resources. It caters to readers of all ages, from young children to adults, providing access to a diverse collection that covers various genres and subjects. The library itself acts as a treasure trove of information and a platform for intellectual exploration, encouraging lifelong learning among the residents of Bareilly.

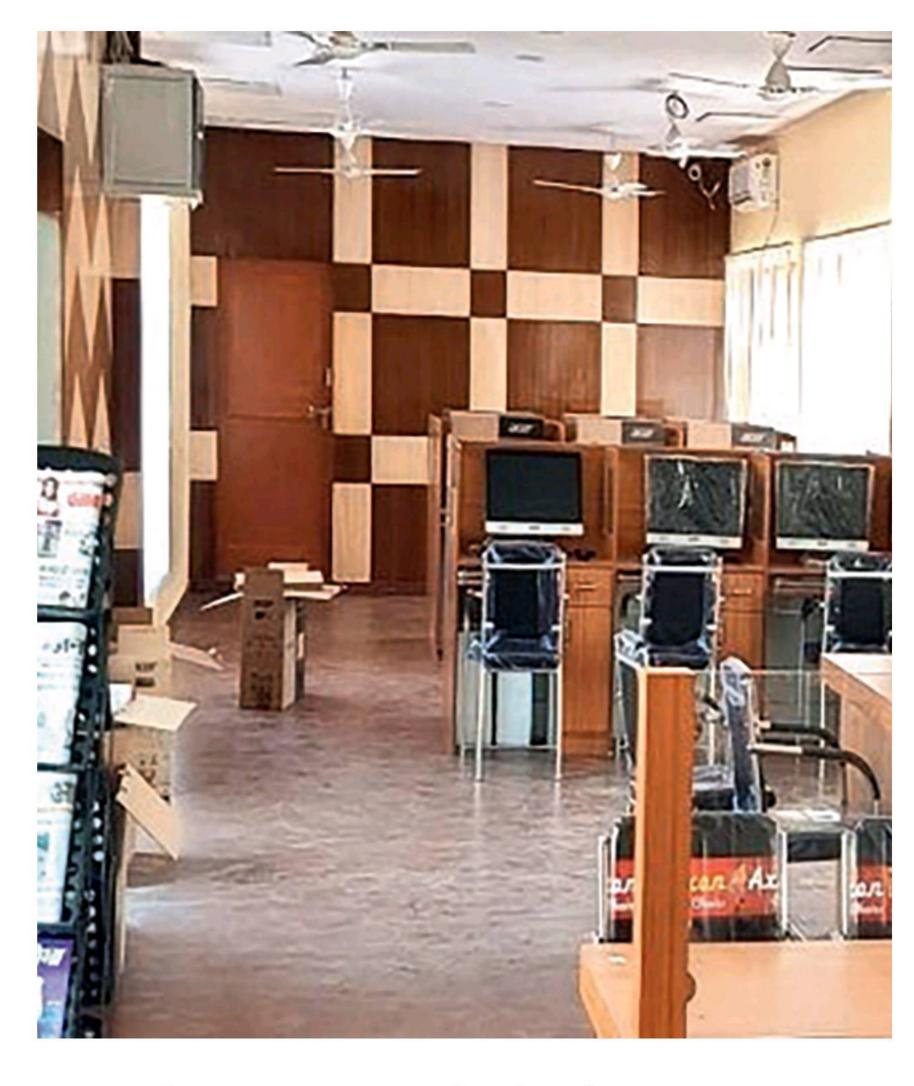
One of the primary objectives of the library

initiative by BSCL is to promote literacy and education in the community. By making books and educational resources easily accessible, the library creates opportunities for individuals, especially students and aspiring learners, to expand their knowledge, improve their reading skills, and engage in self-directed learning. It serves as a valuable resource centre for students preparing for examinations, professionals seeking career development, and individuals interested in personal growth and self-improvement.

The library becomes a space for intellectual development, where individuals can delve into the world of literature, explore new ideas, and broaden their horizons. With a diverse collection of books spanning various genres such as literature, history, science, philosophy, and more, the library caters to different interests and preferences, fostering a love for reading and intellectual curiosity among its patrons.

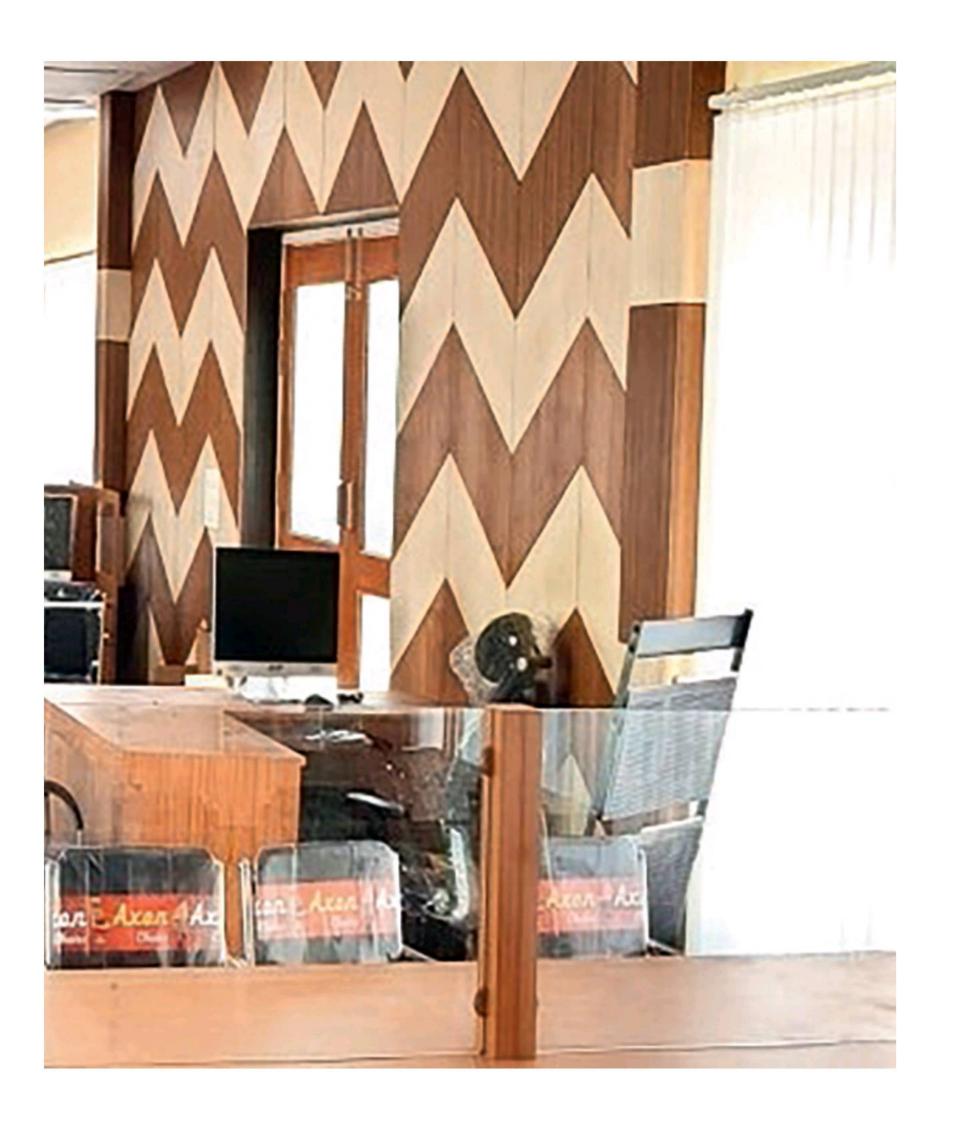
The library initiative by BSCL promotes





community engagement and cultural exchange by organising events, workshops, and interactive sessions. It becomes a platform for authors, educators, and experts to share their knowledge and expertise with the community. Book clubs, reading circles, and literary festivals hosted by the library facilitate meaningful interactions, discussions, and the exchange of ideas, creating a vibrant intellectual and cultural atmosphere in Bareilly.

In line with the digital age, the library also emphasizes digital access and technological integration. The BSCL ensures that the library is equipped with computers, internet connectivity, and digital resources, enabling visitors to access e-books, online databases, and educational platforms. This integration of technology expands the reach of the library, providing access to a vast array of digital resources and empowering individuals

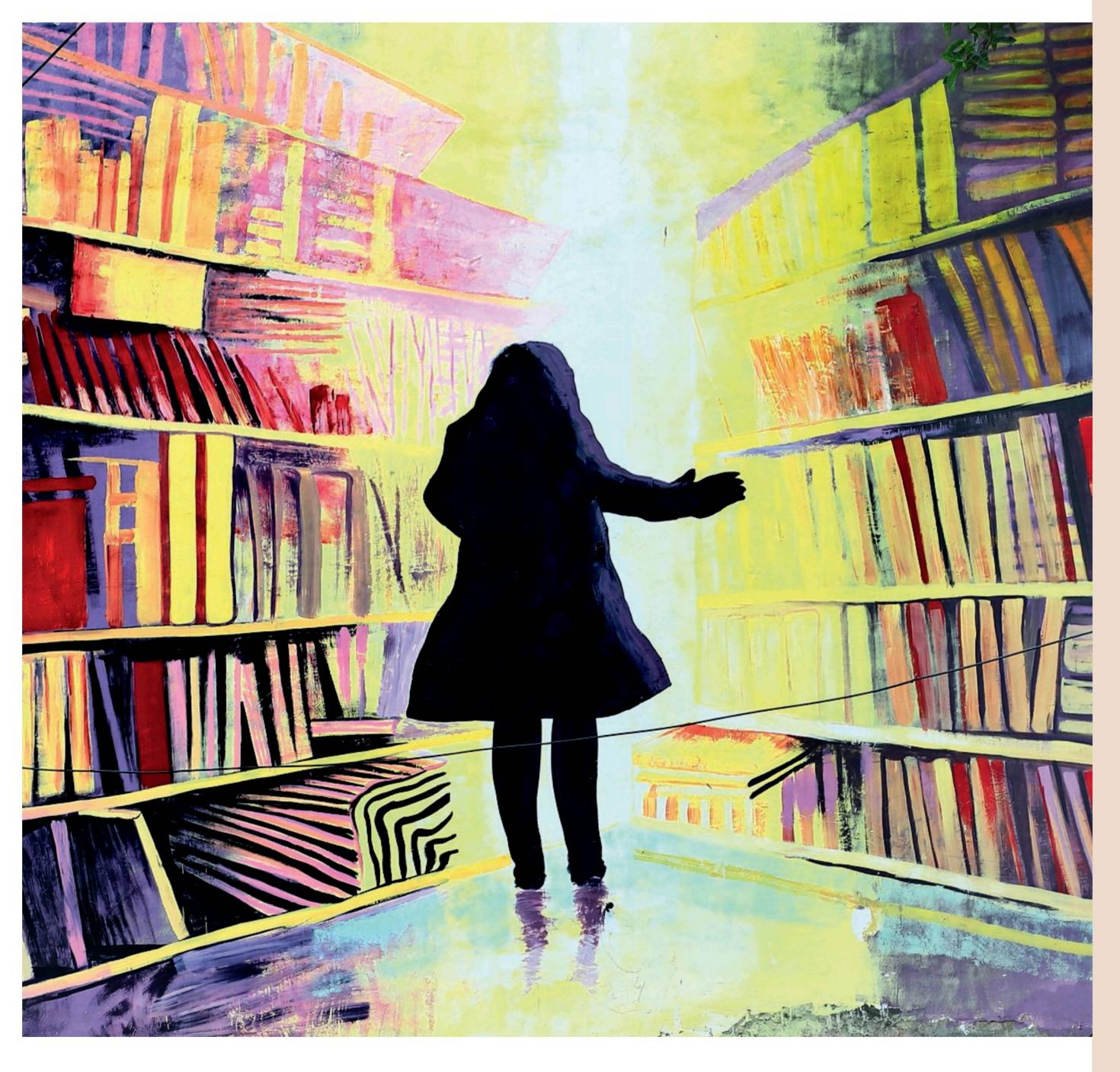


to leverage technology for educational and research purposes.

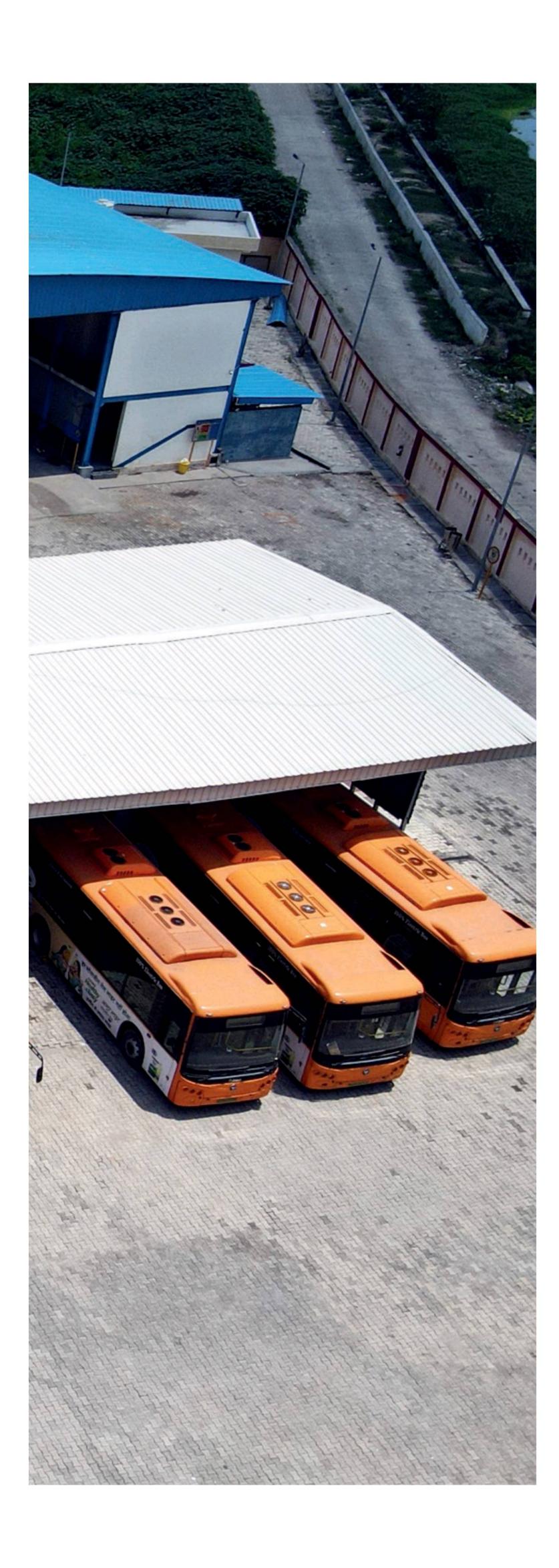
With its diverse collection of books, digital resources, and a conducive learning environment, the library becomes a catalyst for intellectual growth, personal development, and cultural exchange. By promoting literacy, providing educational resources, and facilitating community engagement, the BSCL's library initiative enriches the lives of the residents of Bareilly, empowering them with knowledge and creating opportunities for lifelong learning.

The library represents a significant stride towards fostering education, literacy, and community development in the city

With a diverse collection of books spanning various genres such as literature, history, science, philosophy, and more, the library caters to different interests and preferences, fostering a love for reading and intellectual curiosity among its patrons







The city has been taking strides towards clean and renewable energy in its quest to ensure sustainable development and build a more eco-friendly Bareilly

# Moving Towards Renewable Energy

#### POWERING PUBLIC TRANSPORT: BSCL'S ELECTRIC BUS CHARGING STATIONS

In a bid to revolutionise public transport in the city, Bareilly Smart City Limited (BSCL) is establishing electronic bus charging stations. These charging stations are of paramount importance as they have a crucial impact on the environment and public transport and contribute to a sustainable and efficient transportation system in Bareilly.

The construction of electronic bus charging stations by the BSCL marks a significant stride towards a cleaner and more sustainable public transportation system. These charging stations are specifically designed to support the electrification of buses, providing the necessary infra-

structure for charging electric buses efficiently and conveniently. This initiative reduces dependence on fossil fuels, lowers carbon emissions, and paves the way for a greener and more eco-friendly city.

By replacing conventional fossil fuel-powered buses with electric buses, Bareilly can significantly reduce air pollution and greenhouse gas emissions. Electronic bus charging stations play a crucial role in enabling the operation of electric buses by offering a reliable and efficient charging infrastructure. This transition to electric buses contributes to improved air quality, a reduction in noise pollution, and a healthier living environment for the residents of Bareilly.

The electronic bus charging stations established by BSCL are designed to ensure efficient and convenient charging for the electric bus fleet. These stations incorporate advanced

#### **SMART BAREILLY: TOUCHING NEW HORIZONS**

technologies such as fast-charging capabilities, intelligent charging management systems, and smart grid integration. This allows for optimised charging schedules, effective power distribution, and reduced charging times, ensuring that electric buses are readily available for service and minimising any inconvenience to passengers.

The introduction of electronic bus charging stations aligns with BSCL's vision of promoting sustainable mobility solutions in Bareilly. Electric buses not only reduce emissions but also contribute to the overall efficiency of the transportation system. They offer quieter operation, regenerative braking systems, and lower maintenance costs compared to traditional buses. By embracing electric buses and supporting their charging infrastructure, the BSCL encourages a sustainable and environmentally friendly mode of public transportation.

The implementation of electronic bus charging stations is a testament to Bareilly's Smart City initiatives. These charging stations can be integrated into the broader smart grid infrastructure, enabling intelligent monitoring, management, and optimisation of energy usage. They can also serve as energy storage units, utilising renewable energy sources and contributing to a more resilient and sustainable energy ecosystem within the city.

The construction of electronic bus charging stations by the BSCL represents a significant step towards a sustainable and efficient public transportation system in Bareilly. By supporting the electrification of buses, these charging stations contribute to reduced emissions, improved air quality, and a greener urban environment. The integration of electric buses into the transportation network aligns with the BSCL's commitment to sustainable mobility and smart city initiatives.

Not only are these buses eco-friendly, but there are also cameras fitted too which can report any issue. The cameras are connected to ICCC, which can address the security concerns in real time. By embracing electronic bus charging stations, Bareilly is paving the way for a future where public transport is powered by clean and renewable energy sources, creating a more sustainable and liveable city for its residents.





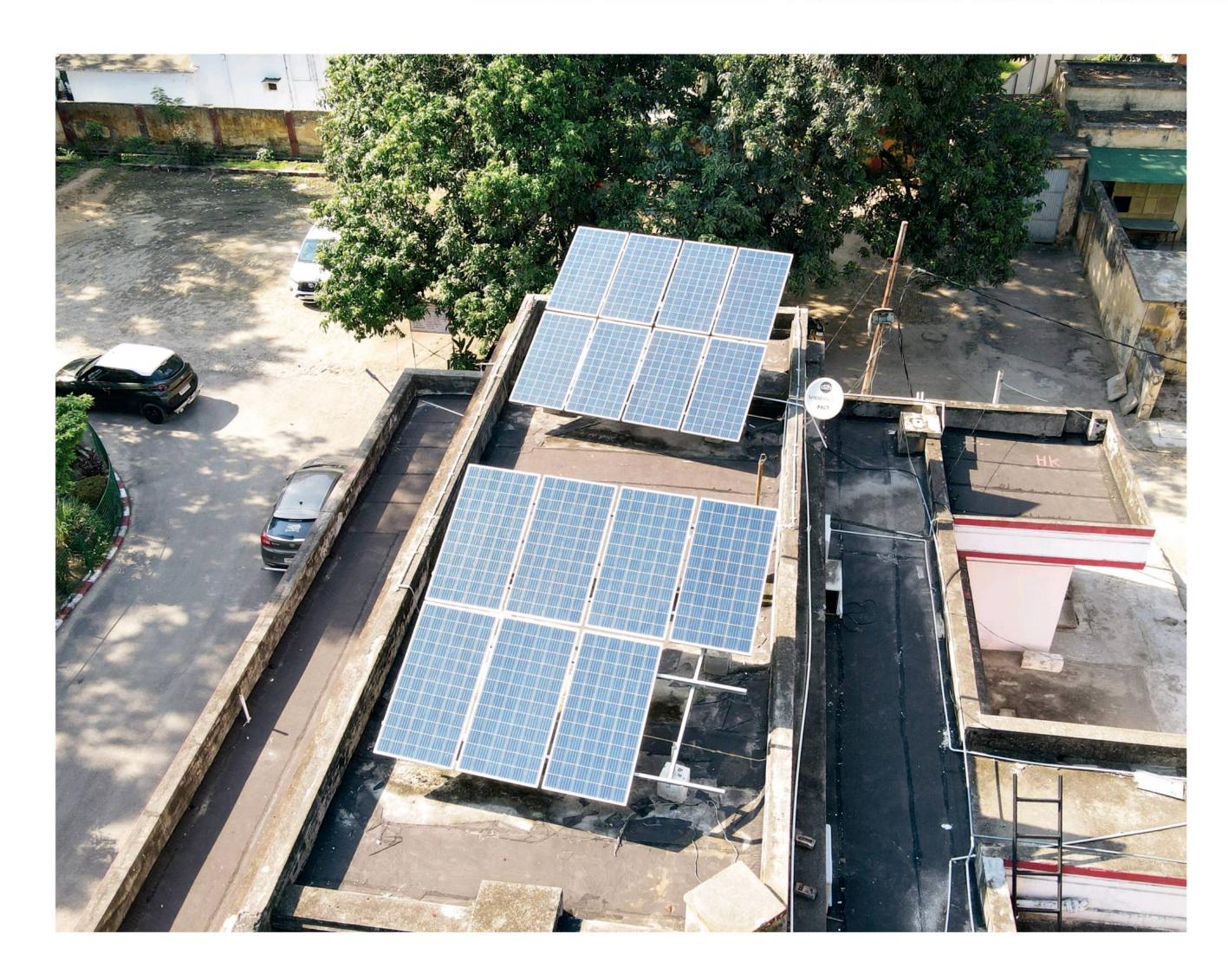
# HARNESSING CLEAN ENERGY: PROVISION OF ROOFTOP SOLAR PANELS ON GOVERNMENT BUILDINGS

In its commitment to sustainable development and environmental conservation, Bareilly Smart City Limited (BSCL) has embarked on an ambitious initiative to install rooftop solar panels on government buildings. The significance of this renewable energy initiative contributes to a greener and more sustainable future for Bareilly.

The provision of rooftop solar panels on government buildings by the BSCL marks a significant shift towards clean and renewable energy sources. By harnessing the power of the sun, these solar panels convert sunlight into electricity, reducing the reliance on fossil fuels and decreasing the carbon footprint of government facilities. This initiative aligns with the global goals of mitigating climate change and promoting sustainable energy practices.

The installation of rooftop solar panels brings numerous environmental benefits to Bareilly. Firstly, it reduces greenhouse gas emissions by generating clean electricity that replaces energy derived from conventional, carbon-intensive sources. This contributes to improved air quality and a healthier environment for the community. Additionally, by utilising solar power, BSCL helps conserve natural resources and mitigates the impact of energy production on ecosystems.

Rooftop solar panels enhance the energy efficiency of government buildings. The generated solar energy can be used to power lighting, heating, cooling, and other electrical systems, reducing reliance on the grid and lowering energy bills. The surplus energy generated during peak periods can be fed back into the grid, resulting in



potential cost savings and even revenue generation for the government. The long-term financial benefits of solar energy make it a sustainable investment for the BSCL and the community.

Through the provision of rooftop solar panels on government buildings, BSCL plays a crucial role in promoting renewable energy awareness within the community. The visibility of solar installations on prominent buildings raises public awareness about the potential of clean energy sources and encourages individuals, businesses, and other government entities to explore renewable energy options. This initiative sets an example for sustainable practices and serves as an inspiration for the adoption of solar energy in other sectors.

The installation of rooftop solar panels creates job opportunities in the renewable energy sector. Skilled workers are required for the design, installation, and maintenance of solar

power systems, contributing to employment generation and economic growth in Bareilly. Additionally, the procurement of solar panels and related equipment stimulates the local economy, supporting businesses involved in the renewable energy supply chain.

The provision of rooftop solar panels on government buildings by the BSCL represents a remarkable step towards a greener and more sustainable Bareilly. This initiative showcases the city's commitment to clean energy, environmental stewardship, and reducing carbon emissions. By harnessing solar power, BSCL not only contributes to a cleaner environment but also promotes energy efficiency, cost savings, job creation, and renewable energy awareness within the community. The installation of rooftop solar panels is a testament to Bareilly's vision of a sustainable future powered by clean and renewable energy sources.





The Solar Tree represents a significant milestone in the city's journey towards clean and sustainable energy. The functionality, aesthetics, and environmental benefits showcase the potential of solar energy in urban settings

# SOLAR TREE: BSCL'S INNOVATIVE SOLUTION FOR CLEAN ENERGY HARVESTING

As a part of its initiative to promote clean energy, Bareilly Smart City Limited (BSCL) has also introduced an innovative and visually striking solution to harness solar energy – the Solar Tree. The concept of the Solar Tree has enormous benefits and exemplifies the BSCL's commitment to promote sustainable development and renewable energy in Bareilly.

The Solar Tree, conceptualised and implemented by the BSCL, is a visually appealing structure that resembles a tree with solar panels as leaves. These "leaves" are strategically positioned to maximise solar exposure and capture sunlight efficiently. The Solar Tree's design not only enhances the cityscape but also serves as a symbol of progress, innovation, and

environmental consciousness.

The Solar Tree utilises advanced photovoltaic technology to convert sunlight into electricity. Solar panels integrated into the tree's structure absorb solar radiation, generating clean and renewable energy. This eco-friendly solution reduces dependence on traditional energy sources and helps mitigate carbon emissions, contributing to a greener and more sustainable Bareilly.

- The Solar Tree generates electricity from solar energy, contributing to the city's renewable energy goals. The clean energy produced can be used to power public spaces, streetlights, charging stations, and other infrastructure, reducing the carbon footprint and promoting sustainable development. Mobile and laptop solar charging services are also available for people visiting these government facilities.
- Efficient Land Utilisation: With limited land availability in urban areas, the vertical design of the Solar Tree optimises space utilisation. By utilising vertical structures such as parking lots, sidewalks, or parks, the Solar Tree maximises energy production without compromising valuable land resources.
- Shade and Aesthetics: The Solar Tree provides shade beneath its canopy, creating a comfortable environment for pedestrians and visitors. Additionally, the visually pleasing design adds to the aesthetics of the city, enhancing the overall ambience and contributing

to a more inviting and sustainable urban landscape.

• Awareness and Education: The Solar Tree serves as an educational tool, raising awareness about solar energy. It sparks conversations and encourages the community to explore renewable energy solutions, inspiring individuals, businesses, and other organizations to adopt clean energy practices.

The introduction of the Solar Tree by the BSCL underscores its commitment to sustainable development and clean energy initiatives. By implementing this innovative solution, the BSCL showcases its dedication to reducing the city's carbon footprint and promoting renewable energy technologies. The Solar Tree ex-

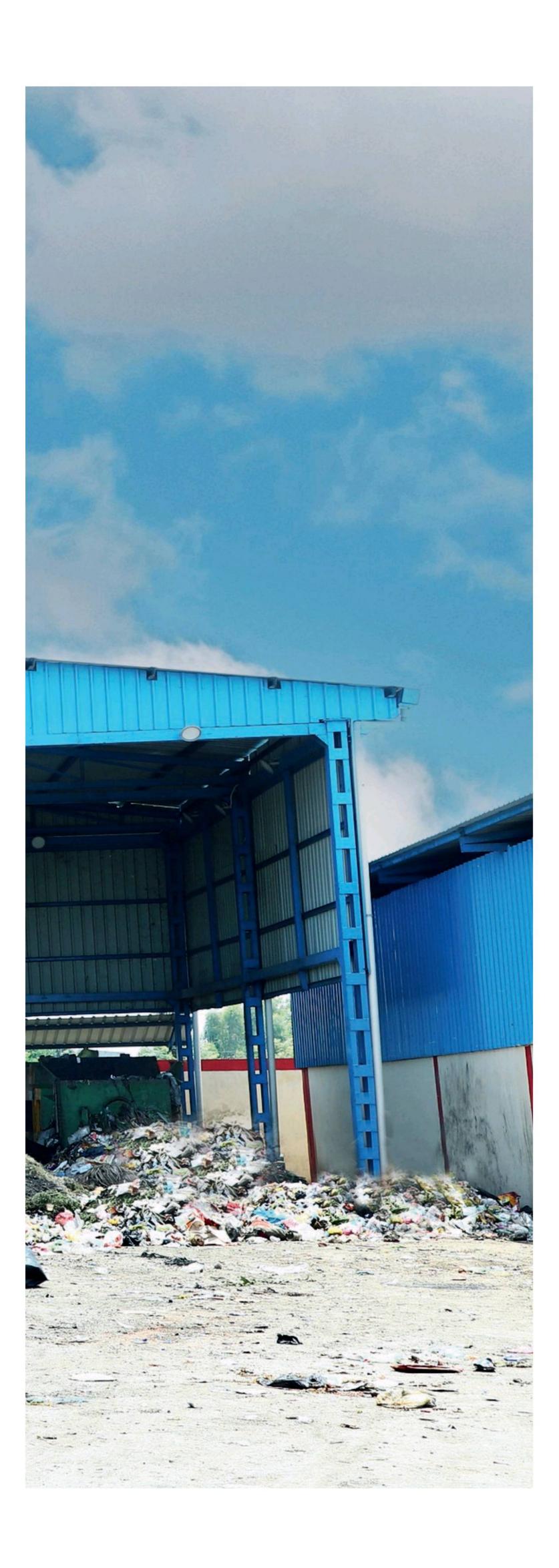
emplifies Bareilly's transition towards a more sustainable and eco-conscious future.

The Solar Tree introduced by the BSCL represents a significant milestone in the city's journey towards clean and sustainable energy. This innovative solution combines functionality, aesthetics, and environmental benefits, showcasing the potential of solar energy in urban settings. As Bareilly embraces renewable energy sources, the Solar Tree serves as an iconic symbol of progress, sustainability, and the BSCL's commitment to building a greener future. Through its innovative approach, the Solar Tree contributes to the city's energy goals, creates awareness, and inspires the community to embrace clean energy solutions.

The introduction of the Solar Tree underscores its commitment to sustainable development and clean energy initiatives. By implementing this, BSCL showcases its dedication to reducing the city's carbon footprint and promoting renewable energy







Let's take a look at how BSCL is leveraging the latest waste management and sanitation technologies to create a pristine city. Using cutting-edge equipment and specialised machines, the agency aims to make Bareilly a shining example of smart sanitation management

# Striving for a Cleaner Bareilly

# EFFICIENT WASTE MANAGEMENT: WASTE TRANSFER STATION & MATERIAL RECOVERY FACILITY (MRF) BY BSCL

The Bareilly Smart City Limited (BSCL) is dedicated to implementing efficient waste management practices in Bareilly. As part of this commitment, BSCL has constructed Waste Transfer Stations and Material Recovery Facilities (MRFs) at five locations across the city.

These facilities play a vital role in streamlining waste collection, transportation, and processing, ensuring sustainable waste management practices, and reducing environmental impact. With the integration of state-of-the-art equipment and advanced technologies, BSCL is revolutionising waste management processes and promoting a cleaner and greener Bareilly.

The Waste Transfer Stations serve as central hubs for collecting and consolidating waste from various collection points across the city. BSCL has strategically established five Waste Transfer Stations to ensure efficient waste collection and transportation. At these stations, waste collection vehicles deposit the collected waste, which is then sorted, compacted, and loaded onto larger transport vehicles for further disposal or processing. The Waste Transfer Stations are equipped with 14 nos of compactors, 9 nos of hook loaders, and 4 nos of skid loaders to handle

waste efficiently and optimise transportation.

The Material Recovery Facility (MRF) is an essential component of BSCL's waste management infrastructure. The MRFs are designed to recover and segregate recyclable materials from the waste stream, diverting them from landfills and promoting recycling efforts. BSCL has established three MRFs as part of this project. At these facilities, trained personnel employ advanced sorting techniques and automated equipment to separate recyclable materials such as paper, plastic, glass, and metals. The recovered materials are then processed and sent for recycling, contributing to the circular economy, and reducing the demand for virgin resources.

The establishment of Waste Transfer Stations and MRFs brings numerous benefits to the waste management system in Bareilly. The primary ones are:

**Improved Efficiency:** By centralising waste collection and transportation, the Waste Transfer Stations enhance the efficiency of waste management operations, reducing travel distances and optimising resource utilisation.

**Enhance Waste Sorting:** The MRFs enable the systematic sorting and segregation of recyclable materials, maximising the recovery of valuable resources and reducing the volume of waste sent to landfills.

**Promote Recycling:** The MRFs play a crucial role in promoting recycling efforts by diverting recyclable materials from the waste stream and facilitating their processing for reuse.

**Reduce Environmental Impact:** Effective waste management through Waste Transfer Stations and MRFs helps minimise the environmental impact of waste disposal, reducing landfill space requirements and conserving natural resources.

**Encourage Sustainable Practices:** By incorporating advanced equipment and technologies, BSCL promotes sustainable waste management practices that align with global environmental standards.

The establishment of Waste Transfer Stations and Material Recovery Facilities by BSCL marks a significant milestone in the journey towards efficient and sustainable waste management in Bareilly. These facilities streamline waste collection, transportation, and processing, optimising resource allocation and promoting recycling efforts. Through the integration of state-of-the-art equipment and advanced technologies, BSCL is spearheading a greener and cleaner Bareilly. The Waste Transfer Stations and MRFs serve as essential pillars of BSCL's commitment to sustainable waste management practices, ensuring a healthier environment for present and future generations.





### ENHANCING WASTE MANAGEMENT EFFICIENCY: SKID LOADERS

In its efforts to optimise waste management operations, the Bareilly Smart City Limited (BSCL) has incorporated skid loaders into its fleet. Skid loaders are versatile and compact machines that play a crucial role in waste management processes, aiding in the efficient handling and transportation of waste materials. With their specific bucket capacity, BSCL's skid loaders contribute to streamlined waste management operations, improving productivity, and ensuring a cleaner and more sustainable Bareilly.

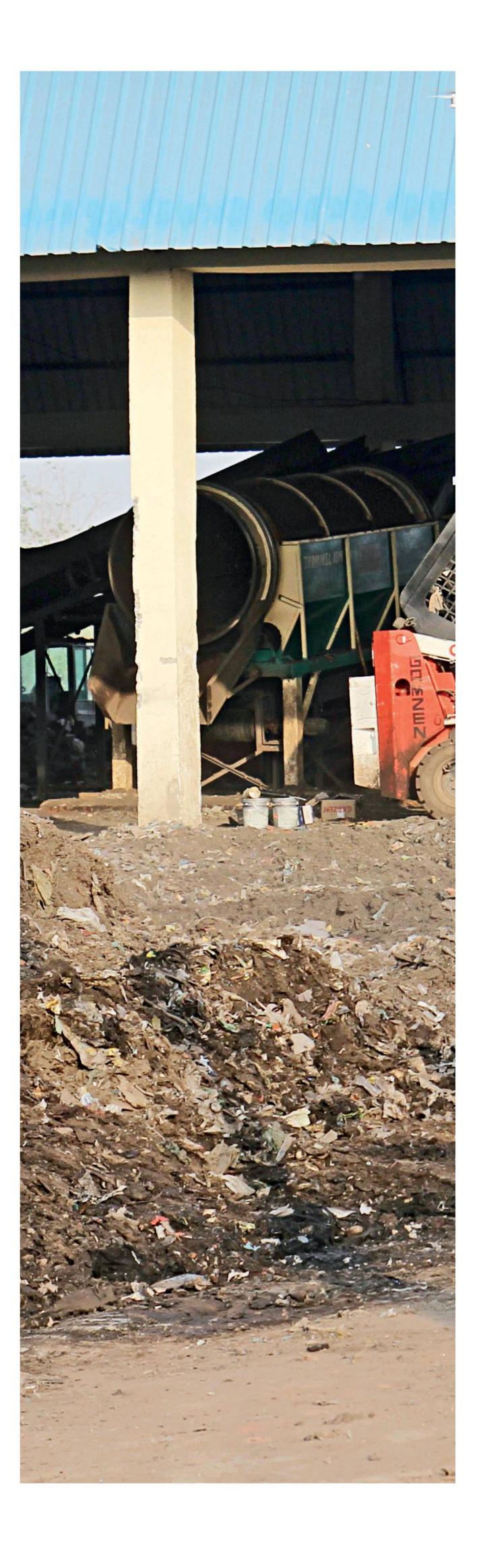
Skid loaders are renowned for their versatility and maneuverability, making them ideal for waste management tasks. With their compact design and tight turning radius, skid loaders can navigate through narrow spaces and confined areas, allowing for efficient waste collection, transportation, and disposal. The machines enable them to handle a significant volume of waste materials in each load, minimising the need for multiple trips and optimising productivity.

BSCL's skid loaders streamline the waste collection and transportation processes. Waste materials, such as construction debris, bulky items, and other solid waste, can be efficiently loaded into the skid loader's bucket. The loaders' powerful hydraulic systems enable the lifting and transportation of heavy waste loads with ease. The machines can manoeuvre in tight spaces, allowing for efficient waste collection from congested areas, alleys, and narrow passages. It ensures that a substantial amount of waste can be transported in each trip, reducing the number of trips required and improving overall operational efficiency.

By utilising skid loaders, BSCL achieves enhanced productivity and time savings in waste management operations. The machines' ability to handle significant waste volumes per load reduces the time and effort required for waste collection and transportation. With fewer trips needed to transport waste materials, the overall turnaround time for waste management tasks is reduced, allowing for more efficient allocation of resources and manpower. This not only optimises operational efficiency but also minimises disruptions to daily activities in the city.

The integration of skid loaders align with BSCL's commitment to environmental sustainability. By enabling efficient waste collection and transportation, these machines contribute to reducing carbon emissions associated with waste management activities. The optimised productivity and time savings achieved through skid loaders translate into reduced fuel consumption and decreased environmental impact. Additionally, the proper handling and transportation of waste materials ensures that they are disposed of in designated areas, minimising littering and maintaining a cleaner and greener environment.

BSCL's inclusion of skid loaders in its waste management operations exemplifies a commitment to efficiency, productivity, and environmental sustainability. These versatile machines enable efficient waste collection and transportation, optimising productivity and reducing turnaround time. With their compact design and powerful capabilities, skid loaders contribute to streamlined waste management processes, ensuring a cleaner and more sustainable Bareilly. Through the integration of these skid loaders, BSCL is actively advancing its waste management objectives and fostering a greener and more efficient waste management system for the city.







### BSCL'S DEPLOYMENT OF HEAVY TIPPER MACHINES: ENHANCING WASTE MANAGEMENT WITH 16 CUM CAPACITY MACHINES

Bareilly Smart City Limited (BSCL) is committed to implementing efficient waste management practices to create a clean and sustainable environment. As part of its efforts, BSCL has deployed five heavy tipper machines with a capacity of 16 cubic meters (CUM) each. These machines play a crucial role in improving waste collection and transportation, optimising resource utilisation, and promoting a cleaner and healthier city.

The deployment of heavy tipper machines with a capacity of 16 CUM each significantly enhances the waste collection capacity of BSCL. These machines are capable of handling larger volumes of waste, allowing for more efficient waste collection from households, commercial areas, and public spaces. The increased capacity helps reduce the number of collection trips required and enhances the overall effectiveness of waste management operations.

The 16 CUM capacity heavy tipper machines provide BSCL with the ability to

streamline waste transportation processes. With their large capacity, these machines can transport substantial amounts of waste in a single trip. This reduces the number of transportation trips required, optimising fuel consumption, and saving time and resources. Streamlined waste transportation ensures efficient and timely delivery of waste to designated disposal facilities.

The deployment of heavy tipper machines with a capacity of 16 CUM each allows BSCL to optimise resource utilisation in waste management operations. By transporting larger volumes of waste in fewer trips, BSCL reduces fuel consumption and minimises the environmental impact associated with waste transportation. This optimised resource utilisation contributes to a more sustainable waste management system in the city.

The utilisation of heavy tipper machines with a capacity of 16 CUM each improves the overall operational efficiency of BSCL's waste management efforts. These machines

enable faster waste collection and transportation, reducing the time required for waste pickup from various sources. The enhanced efficiency translates into cost savings, increased productivity, and improved service delivery, benefiting both BSCL and the residents of Bareilly.

BSCL's deployment of five heavy tipper machines with a capacity of 16 CUM each underscores its commitment to efficient waste management in Bareilly. These machines significantly enhance the waste collection and transportation capabilities of BSCL, enabling streamlined operations and optimised resource utilisation. The increased capacity of heavy tippers contributes to a cleaner and healthier city by reducing the number of trips required and promoting a more sustainable waste management system. BSCL's deployment of these machines reflects its dedication to creating a clean and sustainable environment for the benefit of the community and future generations.

### PROMOTING SUSTAINABLE WASTE MANAGEMENT: ORGANIC WASTE COMPOSTERS BY BSCL

As part of its commitment to sustainable waste management practices, Bareilly Smart City Limited (BSCL) has implemented organic waste composters in Bareilly. These composters play a crucial role in diverting organic waste from landfills and transforming it into nutrient-rich compost, which can be used for various purposes, such as agricultural activities and landscaping. With a total of five organic waste composters, three of which have a capacity of 500 kg and two with a capacity of 1000 kg, BSCL is actively promoting the reduction of organic waste and the production of valuable compost.

Organic waste, including kitchen scraps, garden waste, and other biodegradable materials, makes up a significant portion of the waste generated in the city. Instead of sending this waste to landfills, which contribute to environmental pollution, the organic waste composters by BSCL provide an eco-friendly alternative. These composters enable the decomposition of organic waste through natural processes, resulting in the production of compost, a valuable soil amendment.

Organic waste composters play a vital role in diverting organic waste from landfills. By separating organic waste at the source and diverting it to the composters, BSCL reduces the volume of waste sent to landfills, minimising the environmental impact and conserving landfill space. This not only helps reduce greenhouse gas emissions but also contributes to the overall sustainability of waste management practices in Bareilly.

The organic waste composters facilitate the breakdown of organic waste into compost. Through controlled decomposition, microorganisms naturally convert organic materials into nutrient-rich compost, which is a valuable resource for enhancing soil fertility. The compost produced by the composters can be used in various applications, including agricultural activities, gardening, landscaping, and horticulture. This promotes a circular economy by returning organic nutrients back to the soil and reducing

trient cycling, leading to more sustainable agricultural practices. Additionally, the reduction of organic waste in landfills decreases the risk of groundwater and surface water contamination, preserving local ecosystems.

The implementation of organic waste composters by BSCL demonstrates a proactive approach to sustainable waste management in Bareilly. These composters divert organic waste from land-fills, promote the production of nutrient-rich compost, and contribute to environmental preservation. By



the need for chemical fertilizers.

By utilising organic waste composters, BSCL brings several environmental benefits to Bareilly. Firstly, the diversion of organic waste from landfills helps reduce methane emissions, a potent greenhouse gas that contributes to climate change. Secondly, the production and use of compost helps improve soil health, water retention, and nu-

engaging the community and raising awareness about the benefits of composting, BSCL encourages residents and businesses to actively participate in reducing organic waste. Through the utilisation of organic waste composters, BSCL is fostering a greener and more environmentally conscious Bareilly, promoting a circular economy, and contributing to the overall well-being of the city.

# EFFICIENT SLUDGE MANAGEMENT: SUPER SUCKER TYPE DE-SILTING MACHINE WITH DUMP TANKS BY BSCL

Proper sludge management is essential for maintaining environmental hygiene. The Super Sucker type de-silting machine ensures thorough cleaning of sludge-prone areas, reducing foul oduors and potential health hazards associated with stagnant or contaminated water. The dump tanks facilitate the safe containment and transportation of sludge, minimising the risk of pollution and ensuring a healthier living environment for residents

Bareilly Smart City Limited (BSCL) recognizes the importance of efficient sludge management in maintaining a clean and sustainable city. As part of its efforts, BSCL has procured a Super Sucker-type de-silting machine along with two dump tanks. This initiative aims to enhance the management of sludge generated in Bareilly and improve the overall clean-liness of the city.

The Super Sucker type de-silting machine is a specialized equipment designed for the effective removal of sludge and sediment from drains, sewage systems, and other waste collection points. Equipped with powerful suction capabilities, this machine efficiently extracts sludge and deposits it into the dump tanks for proper disposal. The machine's robust design and advanced technology ensure thorough cleaning of sludge-prone areas, contributing to a cleaner and healthier environment.

To complement the Super Sucker-type de-silting machine, BSCL has procured two dump tanks. These tanks serve as temporary storage for the extracted sludge and allow for convenient transportation to disposal sites. The dump tanks are designed to handle the collected sludge safely and efficiently, ensuring proper containment during transit and minimising the risk of spillage or environmental contamination.

Efficient Sludge Management: The Super Sucker type desilting machine, in conjunction with the dump tanks, streamlines the sludge management process in Bareilly. The machine's powerful suction capabilities enable quick and effective removal of sludge,

reducing the accumulation of waste in drains and sewage systems. This improves the overall cleanliness of the city and reduces the risk of clogging and blockages.

Enhanced Environmental Hygiene:

Proper sludge management is essential for maintaining environmental hygiene. The Super Sucker type de-silting machine ensures thorough cleaning of sludge-prone areas, reducing foul odours and potential health hazards associated with stagnant or contaminated water. The dump tanks facilitate the safe containment and transportation of sludge, minimising the risk of pollution and ensuring a healthier living environment for residents.

Timely and Effective Waste Disposal: With the Super Sucker type de-silting machine and dump tanks, BSCL ensures the timely and efficient disposal of collected sludge. By promptly removing sludge from drains and sewage systems, the machine helps prevent the spread of diseases and promotes a more sustainable waste management system. The dump tanks enable easy transportation of sludge to designated disposal sites, ensuring proper treatment and disposal in compliance with environmental regulations.

BSCL's procurement of the Super Sucker type de-silting machine along with two dump tanks underscores its commitment to efficient sludge management in Bareilly. By utilizing this specialised equipment, BSCL enhances the cleanliness and environmental hygiene of the city, reduces the risk of drainage blockages, and promotes a healthier living environment for residents. The Super Sucker type de-silting machine and dump tanks facilitate the timely removal and proper disposal of sludge, contributing to the overall sustainability and well-being of the city.



# CONSTRUCTION OF WORKSHOP FOR SWM VEHICLES: ENHANCING EFFICIENCY IN WASTE MANAGEMENT BY BSCL

As part of its comprehensive waste management initiatives, Bareilly Smart City Limited (BSCL) is undertaking the construction of a dedicated workshop for Solid Waste Management (SWM) vehicles. This workshop serves as a vital facility to support the maintenance, repair, and upkeep of the SWM vehicles employed by BSCL. By providing a well-equipped and specialised space for vehicle maintenance, BSCL aims to enhance the efficiency and reliability of waste management operations, ensuring a cleaner and healthier city.

The workshop for SWM vehicles is being

The workshop plays a crucial role in implementing preventive maintenance programmes for SWM vehicles. Regular inspections and scheduled maintenance activities are conducted to identify and address any potential issues before they escalate



constructed with state-of-the-art infrastructure and modern facilities. It is designed to accommodate the specific needs of SWM vehicles, providing ample space for vehicle inspection, maintenance, and repair. The workshop is equipped with advanced tools, equipment, and machinery necessary for the servicing and upkeep of vehicles. Specialised service bays, oil change areas, and vehicle washing facilities are incorporated to ensure that the SWM vehicles receive the necessary attention to keep them in optimal working condition.



BSCL recognizes the importance of a skilled workforce to effectively manage and maintain the SWM vehicles. The workshop is staffed by trained technicians and mechanics who have expertise in handling SWM vehicles. These professionals possess in-depth knowledge of the vehicles' systems, ensuring that repairs and maintenance are carried out to the highest standards. Regular training programmes are conducted to update their skills and keep them abreast of the latest developments in vehicle technology and maintenance practices.

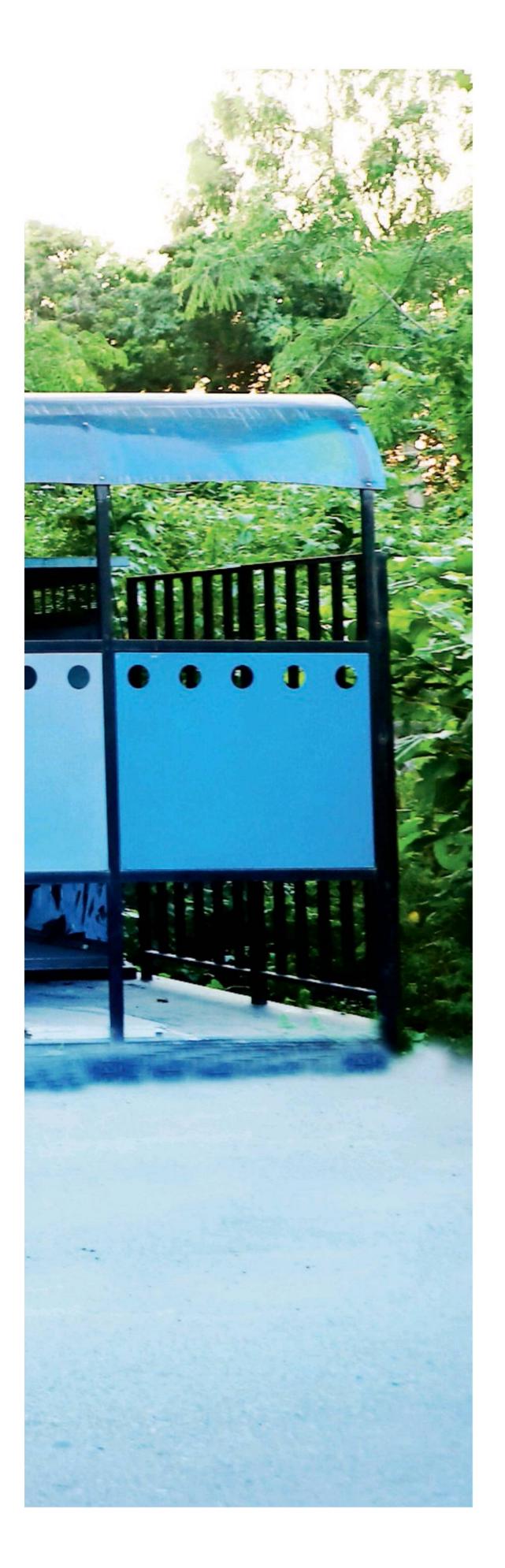
The workshop plays a crucial role in implementing preventive maintenance programs for SWM vehicles. Regular inspections and scheduled maintenance activities are conducted to identify and address any potential issues before they escalate. This proactive approach helps prevent breakdowns, reduces downtime, and ensures that the vehicles are always in optimum operating condition. In case of any repairs or breakdowns, the workshop is equipped to provide timely and efficient assistance, minimising disruptions to waste management operations.

The construction of a dedicated workshop for SWM vehicles not only enhances efficiency but also contributes to cost-effectiveness. By having a centralised facility for vehicle maintenance, BSCL can streamline repair and maintenance processes, optimise inventory management, and minimise the need for outsourcing services. This results in reduced maintenance costs, improved operational efficiency, and enhanced utilisation of resources.

The construction of a dedicated workshop for SWM vehicles by BSCL highlights the commitment to efficient waste management practices and the well-being of the city. The workshop's state-of-the-art infrastructure, skilled workforce, and emphasis on preventive maintenance ensure that the SWM vehicles are well-maintained, reliable, and perform optimally. By providing timely repairs, conducting regular maintenance, and adhering to sustainable practices, the workshop plays a vital role in supporting waste management operations. The workshop not only enhances efficiency but also contributes to cost-effectiveness, ensuring that Bareilly remains clean, healthy, and environmentally sustainable.

## SMART PUBLIC TOILETS: A NEW ERA OF CLEANLINESS AND CONVENIENCE IN BAREILLY BY BSCL





Bareilly Smart City Limited (BSCL) is dedicated to transforming the urban landscape of Bareilly, and one of its significant initiatives is the implementation of smart public toilets. These state-of-the-art facilities offer a host of innovative features, ensuring cleanliness, convenience, and accessibility for all residents and visitors. Equipped with advanced technologies and thoughtful design, the smart public toilets by BSCL revolutionise the experience of using public facilities, setting new standards for hygiene, efficiency, and user comfort.

The smart public toilets introduced by BSCL prioritise hygiene and cleanliness. They are equipped with sensor-based flush systems, eliminating the need for manual flushing, and promoting a more sanitary environment. Additionally, automated cleaning mechanisms ensure regular disinfection of toilet seats, floors, and other surfaces. With handsfree operations and automated cleaning, these toilets minimise the risk of germ transmission and maintain a high level of cleanliness, ensuring a safe and pleasant experience for users.

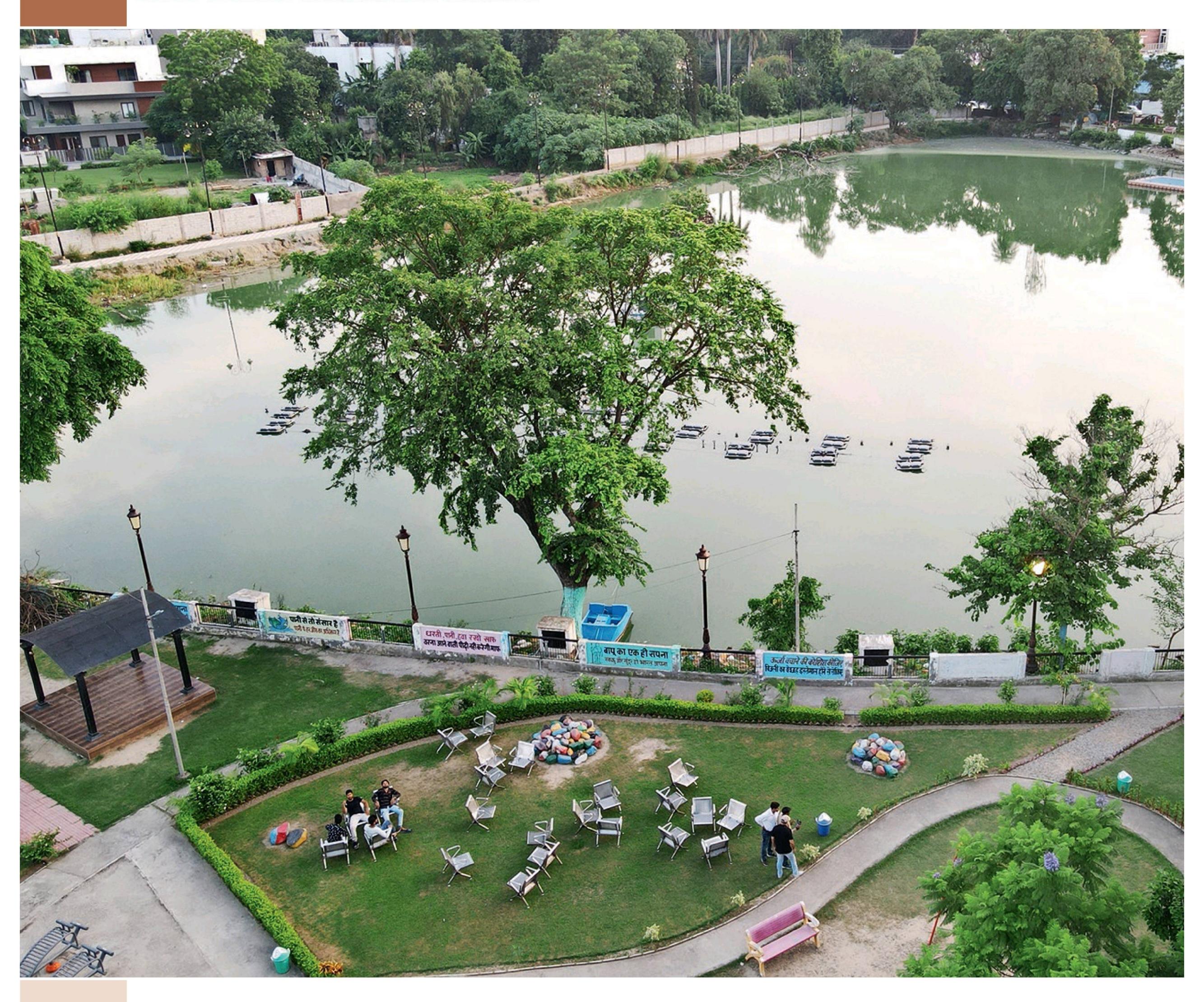
BSCL's smart public toilets are designed with user convenience in mind. They incorporate intelligent features such as automatic lighting, which senses user presence and turns it on instantly, ensuring a well-lit environment. Moreover, the toilets are equipped with occupancy sensors that indicate the availability of individual cubicles, saving users from the inconvenience of checking each one. These smart features enhance user comfort and minimise waiting time.

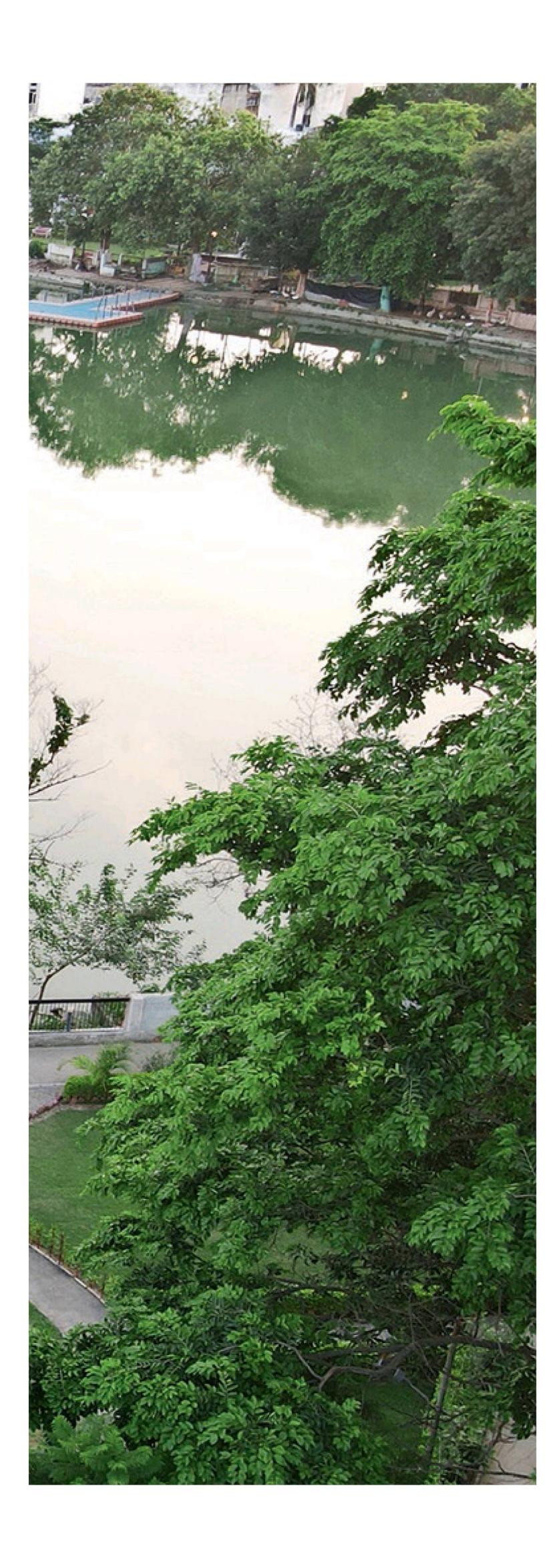
BSCL's commitment to inclusivity is reflected in the design of smart public toilets. These facilities include separate sections for males, females, and individuals with disabilities, ensuring complete privacy, dignity, and accessibility for all users. The handicapped toilets are thoughtfully designed to accommodate wheelchair access and provide ample space for maneuverability.

The smart public toilets implemented by BSCL are not just user-friendly but also environmentally conscious. Waterless urinals are installed, reducing water consumption significantly. This eco-friendly approach helps conserve water resources and promotes sustainable practices. Furthermore, energy-efficient systems and LED lighting fixtures are utilized to minimise energy consumption and reduce the carbon footprint of these facilities. BSCL's focus on environmental sustainability aligns with its vision of creating a greener and more eco-friendly city.

BSCL employs advanced monitoring and maintenance systems to ensure the seamless operation of smart public toilets. Real-time monitoring using sensors allows for efficient management of water usage, waste disposal, and general maintenance requirements. Any issues or malfunctions are detected promptly, enabling swift response and resolution. This proactive approach ensures that the toilets remain in optimal condition, providing uninterrupted service to the public.

BSCL's introduction of smart public toilets represents a significant step towards creating a modern, hygienic, and user-centric urban environment in Bareilly. These facilities combine advanced technologies, thoughtful design, and environmental sustainability to provide residents and visitors. By prioritising hygiene, convenience, and inclusivity, BSCL sets a new benchmark for public sanitation facilities. The smart public toilets not only enhance the overall quality of life but also reinforce BSCL's commitment to building a smart, sustainable, and people-centric city in Bareilly.





Various initiatives have been undertaken by BSCL to implement smart water management and drainage in Bareilly to prevent wastage and pollution, while building a greener and more eco-friendly city

# Improving Water Management and Drainage

### REVITALISING AKSHAR VIHAR LAKE AREA: CREATING A SERENE OASIS FOR RECREATION AND RELAXATION

The Akshar Vihar Lake area in Bareilly has undergone a significant renovation for recreational purposes, thanks to the efforts of Bareilly Smart City Limited (BSCL). This ambitious project aimed to revitalise the lake area, reignite activities and improve connectivity by constructing a drain from Akshar Vihar to Jat Regiment. These enhancements will create a vibrant recreational space and foster a stronger sense of community engagement.

As part of the renovation, BSCL is dedicated to reviving activities in the Akshar Vihar Lake. Construction of a drain will ensure no

waterlogging takes place. Contruction and utilisation of a jetty (a structure extended into the lake) will provide individuals and families the opportunity to experience nature, first-hand. The tranquil flow of water also houses a multimedia laser fountain that has mystically beautified the pond and residents and visitors will once again be able to experience the joy and create lasting memories on the serene waters of Akshar Vihar Lake.

To enhance connectivity and address drainage issues, BSCL is undertaking the construction of a drain from Akshar Vihar to Jat Regiment. This drain will improve the flow of water, prevent waterlogging, and mitigate the risk of flooding during heavy rains. By effectively managing rainwater runoff, the drain will help maintain the integrity of the lake area and ensure a pleasant recreational en-

vironment for all. Additionally, the improved drainage system will also contribute to the overall cleanliness and hygiene of the surrounding area.

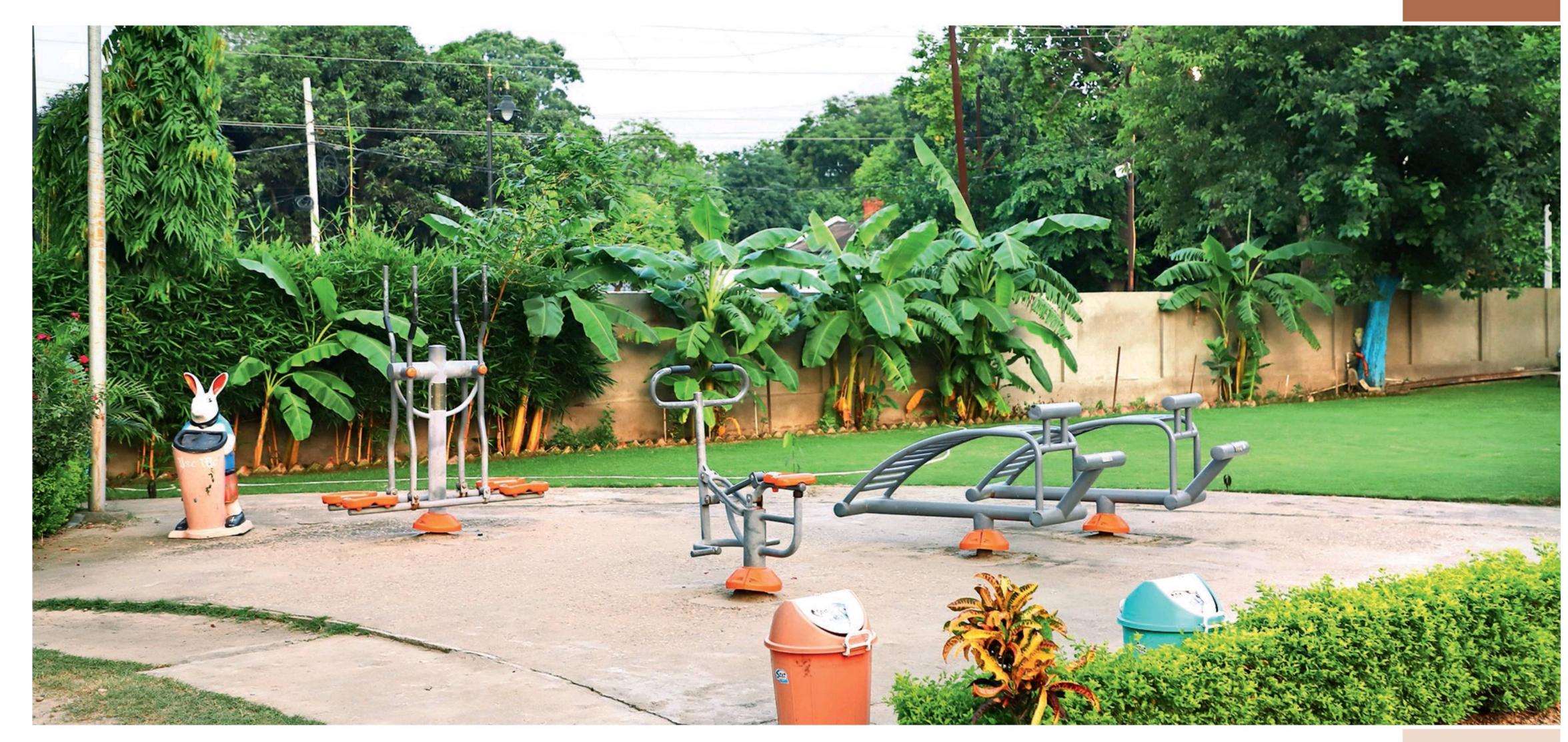
The renovation of the Akshar Vihar Lake area serves as a catalyst for community engagement and social interaction. It creates a gathering place where residents can come together, participate in recreational activities, and forge new connections. The improved infrastructure and amenities will encourage people from all walks of life to explore and enjoy the beauty of the lake area. Through community events, workshops, and cultural programs, BSCL aims to foster a sense of pride and ownership among residents, thereby ensuring that the renovated Akshar Vihar Lake becomes a cherished space for the entire community.

The renovation of the Akshar Vihar Lake area by BSCL marks a significant step in transforming the space into a vibrant recreational hub. The revival of boating activities, the construction of a drain for improved connectivity, and the creation of a vibrant recreational space demonstrate BSCL's commitment to enhancing the quality of life for residents and promoting community engagement. With these enhancements, the Akshar Vihar Lake area will once again become a cherished destination where people can reconnect with nature, enjoy recreational activities, and create cherished memories in the heart of Bareilly.













#### CONSTRUCTION OF RCC DRAIN: A STEP TOWARDS IMPROVED INFRASTRUCTURE BY BSCL

The construction of the RCC drain aligns with BSCL's vision of promoting sustainable development.
The implementation of proper drainage systems reduces the dependence on temporary solutions and ensures long-term sustainability

Bareilly Smart City Limited (BSCL) is dedicated to enhancing the infrastructure of the city to provide a better living environment for its residents. As part of this commitment, BSCL has undertaken a significant project to construct a Reinforced Concrete Cement (RCC) drain from Kargaina Police Station to Badaun Road in Bareilly. This endeavour aims to improve drainage systems, mitigate waterlogging issues, enhance road safety, and promote overall cleanliness and hygiene. By focusing on the construction of this RCC drain, BSCL is taking proactive measures to create a more efficient and sustainable urban environment.

One of the primary objectives of the RCC drain project is to address water drainage challenges along the stretch from Kargaina

Police Station to Badaun Road. This area has been prone to waterlogging, especially during heavy rainfall, leading to inconvenience and potential hazards for commuters and pedestrians. The construction of the RCC drain will effectively channel the rainwater away from the road, ensuring a smooth flow and minimising the risk of water accumulation. By alleviating water drainage issues, BSCL is enhancing the safety and convenience of travel for residents and visitors.

The construction of the RCC drain along Badaun Road contributes to improved road safety in the area. Water accumulation during rainy seasons can pose a significant risk, affecting visibility and causing slippery road conditions. The RCC drain serves as a dedicated channel to direct rainwater away from the road surface, reducing the chances of accidents caused by hydroplaning or reduced traction. With the implementation of this project, BSCL is actively working towards creating safer road conditions for all users.

Proper drainage systems play a crucial role in maintaining cleanliness and hygiene in urban areas. By constructing the RCC drain, BSCL aims to minimise the accumulation of stagnant water, which often leads to the breeding of mosquitoes and other disease-carrying vectors. This initiative contributes to improved public health by reducing the risk of waterborne diseases and enhancing the overall cleanliness of the surroundings. With the RCC drain in place, the area from Kargaina Police Station to Badaun Road will become more hygienic, providing a healthier living environment for residents.

The construction of the RCC drain aligns with BSCL's vision of promoting sustainable development in Bareilly. The implementation of proper drainage systems reduces the depen-

dence on temporary solutions and ensures longterm sustainability. The RCC drain is designed to withstand the test of time, effectively managing water flow and preventing the deterioration of the road infrastructure due to waterlogging issues. By investing in sustainable infrastructure, BSCL demonstrates its commitment to creating a city that can withstand the challenges posed by changing climatic conditions. The construction of the RCC drain from Kargaina Police Station to Badaun Road by BSCL signifies a significant step towards improving infrastructure and addressing water drainage challenges in Bareilly. This project not only enhances road safety but also contributes to the cleanliness, hygiene, and overall well-being of the community.

BSCL's proactive approach to sustainable

development ensures that the city's infrastructure is designed to withstand the test of time while providing a safe and convenient environment for residents and visitors. The construction of the RCC drain exemplifies BSCL's commitment to creating a city that thrives on efficient and sustainable urban infrastructure.







#### INTEGRATING TUBEWELL AUTOMATION THROUGH PLC & SCADA WITH ICCC: ENHANCED WATER MANAGEMENT BY BSCL

Bareilly Smart City Limited (BSCL) is at the forefront of implementing advanced technologies to improve the efficiency and effectiveness of urban services. As part of its water management initiatives, BSCL has integrated tubewell automation systems, operated through Programmable Logic Controllers (PLC) and Supervisory Control and Data Acquisition (SCADA), with the Integrated Command Control Centre (ICCC). This integration allows for seamless monitoring, control, and analysis of the tubewell operations, enabling real-time decision-making, optimised resource allocation, and improved water management across the city of Bareilly. By connecting tubewell automation with the ICCC, BSCL demonstrates its commitment to smart and sustainable water infrastructure.

The integration of tubewell automation with the ICCC provides a centralised platform for monitoring and controlling the entire water supply network. Real-time data from the tubewell automation systems, including water levels, flow rates, pressure, and energy consumption, is seamlessly transmitted to the ICCC. This data is then analysed and displayed on the ICCC dashboard, enabling operators to gain valuable insights into the performance and status of the tubewells. Operators can remotely control various parameters, such as pump operation, valve settings, and emergency shut-off, ensuring optimal water supply management across the city.

The connectivity between tubewell automation and the ICCC facilitates data analytics, enabling BSCL to gain a deeper understanding of the water supply system's behaviour and performance. Historical data

collected from tubewells, combined with real-time information, is analysed to identify patterns, trends, and anomalies. These insights empower BSCL to make informed decisions related to resource allocation, demand forecasting, and infrastructure planning. The ICCC's advanced analytics capabilities also facilitate predictive maintenance, allowing for the timely identification of potential issues and proactive maintenance interventions, reducing the risk of equipment failures and minimising downtime.

The integration of tubewell automation with the ICCC enhances resource allocation efficiency. By continuously monitoring water demand patterns and adjusting tubewell operations accordingly, BSCL can optimise water distribution and ensure equitable supply across different areas. The ICCC provides a comprehensive overview of water consumption, allowing for the identification of areas with high demand and potential leakages. This data-driven approach enables BSCL to allocate resources effectively, reduce water wastage, and ensure an uninterrupted water supply to residents, businesses, and public institutions.

In times of emergencies or incidents such as water leakages or supply disruptions, the integration of tubewell automation with the ICCC proves invaluable. Real-time data from the tubewell automation systems enable rapid detection and response to critical situations. The ICCC's advanced alerting and incident management capabilities allow operators to quickly address issues, dispatch field teams, and coordinate resources efficiently. This proactive approach minimises the impact of incidents,

ensures prompt resolution, and enhances the overall reliability of the water supply network.

The integration of tubewell automation systems, operated through PLC and SCADA, with the Integrated Command Control Centre (ICCC) is a significant step toward smart and sustainable water management in Bareilly. By connecting tubewell automation to the ICCC, BSCL enables centralised monitoring, control, and analysis of the water supply network. This integration enhances resource allocation, enables data-driven decision-making, and improves incident response and maintenance planning.

The seamless flow of real-time data between tubewell automation and the ICCC empowers BSCL to ensure efficient water management, optimise resource utilization, and provide a reliable water supply to the residents of Bareilly. This integration underscores BSCL's commitment to leveraging advanced technologies for the betterment of the community and the sustainable development of the city's water infrastructure.

The integration of tubewell automation systems, operated through PLC and SCADA with the Integrated Command Control Centre (ICCC) is a significant step toward smart and sustainable water management in Bareilly

## REJUVENATION OF SANJAY COMMUNITY HALL POND: BSCL'S 0.5 MLD DE-STP INSTALLATION

Bareilly Smart City Limited (BSCL) is taking a significant step towards rejuvenating the Sanjay Community Hall Pond by installing a 0.5 million Litres per Day (MLD) Decentralized Sewage Treatment Plant (DeSTP). This step has a positive impact on the environment and the local community and aligns with BSCL's vision for a cleaner and greener Bareilly.

The installation of the 0.5 MLD De-STP at the Sanjay Community Hall Pond addresses a pressing environmental concern – water pollution. The pond may have faced contamination due to untreated sewage and other pollutants, affecting its water quality and

BSCL is taking significant steps towards rejuvenating the Sanjay Community Hall Pond by installing a 0.5 million Litres per Day (MLD) Decentralized Sewage Treatment Plant (De-STP). This step will have a positive impact on the environment and the local community



ecosystem. The De-STP acts as an effective solution to treat sewage and remove harmful contaminants, ensuring that the pond remains clean and suitable for various ecological activities.

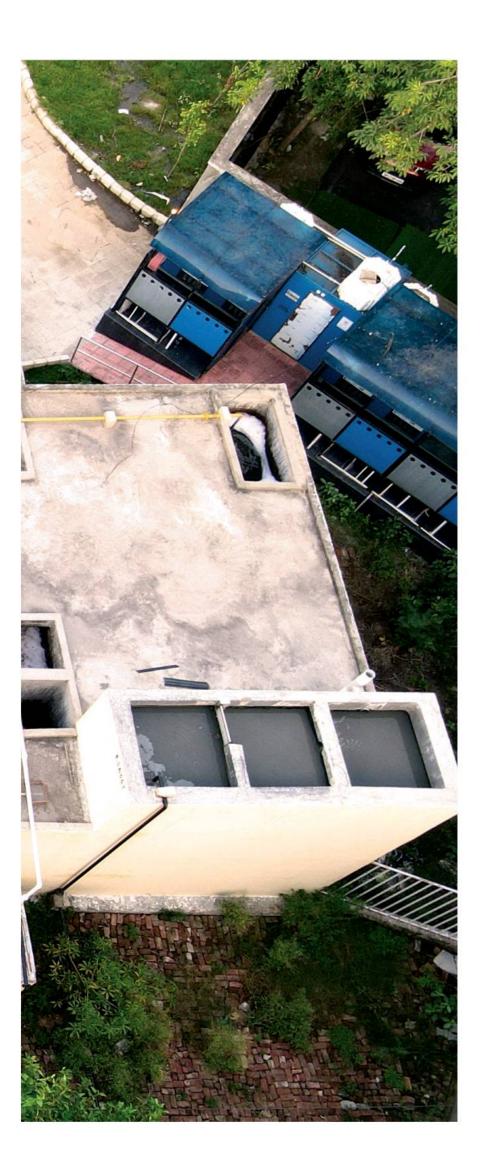
By implementing the De-STP, the BSCL emphasises its commitment to environmental conservation. The treatment plant employs advanced technologies to treat wastewater, removing harmful pollutants and nutrients before releasing the water into the pond. This eco-friendly approach helps maintain the pond's ecological balance, preserves the aquatic habitat, and promotes biodiversity.

The installation of the 0.5 MLD De-STP reflects a strategic approach to water resource management. Instead of discharging untreated sewage into the pond, the De-

STP reuses and treats wastewater, thereby reducing the strain on freshwater sources. This sustainable practice not only conserves water but also minimises the risk of waterborne diseases, contributing to public health and well-being.

The rejuvenation of the Sanjay Community Hall Pond through the De-STP installation enhances the recreational potential of the area. With improved water quality, the pond becomes an attractive destination for residents and visitors alike. It offers opportunities for leisure activities, such as picnicking, and enjoying the natural surroundings, fostering a sense of community engagement and well-being.

The installation of the De-STP at the Sanjay Community Hall Pond involves active community participation and engagement.





The BSCL can conduct awareness campaigns and educational programmes to inform the local community about the significance of wastewater treatment and environmental conservation. Such initiatives empower residents to take ownership of their surroundings and contribute to the long-term preservation of the pond.

The installation of a 0.5 MLD De-STP at the Sanjay Community Hall Pond by the BSCL marks a significant milestone in the rejuvenation of the area. This sustainable initiative addresses water pollution, promotes environmental conservation, and enhances the recreational potential of the pond. By investing in a decentralised sewage treatment solution, the BSCL showcases its dedication to building a cleaner and greener Bareilly. The rejuvenation project aligns with the city's vision of sustainable development and reflects the BSCL's commitment to creating inclusive, eco-friendly spaces that benefit both the environment and the local community.

The installation of
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Learn how BSCL seeks to revolutionise the power supply in Bareilly by leveraging the power of cutting-edge technology and modern management systems. The aim is to optimise power usage and prevent wastage to build a Smart City of the future

# Empowering a Brighter Bareilly

### UNDERGROUND CABLING REVOLUTION: ENSURING POWER STABILITY AND SAFETY ACROSS BAREILLY BY BSCL

In its relentless pursuit of enhancing the power infrastructure, Bareilly Smart City Limited (BSCL) has initiated a transformative project to implement underground cabling for both low-tension and high-tension electric cables.

This ambitious endeavour aims to revolutionise power distribution in Bareilly by preventing power theft, reducing power loss, improving safety for the public, and elevating the aesthetic appeal of the city. BSCL's underground cabling project encompasses important and crowded areas, markets, key roads, as well as the ABD (Ar-

ea-Based Development) regions, including roads of Civil Lines, Chaupla Chauraha, Railway Junction, Patel Chowk, Rampur Garden, Circuit House, Battalion Gate, Akshar Vihar and others. This comprehensive approach ensures uninterrupted electricity supply while enhancing the safety and visual allure of the city's most vital locations.

Underground cabling serves as a robust deterrent against power theft, minimising revenue losses and ensuring a fair distribution of electricity. The secure placement of electric cables underground effectively curtails unauthorised connections, safeguarding the integrity of the power grid. Furthermore, underground cabling reduces power loss during transmission, leading to a more efficient and reliable

power supply, particularly in areas where theft and loss were previously prevalent. This significant reduction in power loss positively impacts the overall stability and availability of electricity for residents and businesses across Bareilly.

The implementation of underground cabling brings about a visual transformation, enhancing the aesthetic appeal of Bareilly's important locations. The removal of unsightly overhead cables and poles results in unobstructed views, presenting a clean and visually appealing cityscape. By eliminating visual clutter, underground cabling imparts a sense of harmony and elegance to key areas, elevating the overall ambience and leaving a lasting impression on residents and visitors alike. Furthermore, this project effectively mitigates the risks of thunder-related accidents, sparking, and fire hazards that were previously associated with overhead cables, prioritising the safety of the public.

BSCL's underground cabling project prioritises critical areas of Bareilly, including important roads, crowded markets, and key landmarks. By ensuring a continuous and reliable electricity supply to these locations, BSCL fosters economic growth, supports local businesses, and improves the quality of life for residents. Areas such as Civil Lines, Chaupla Chauraha, Railway Junction, Patel Chowk, Rampur Garden, Circuit House, Battalion Gate, Akshar Vihar and others 12`2e will benefit from uninterrupted power, allowing for smooth operations, enhanced safety measures, and increased productivity.

The underground cabling project extends its reach to the Area-Based Development (ABD) regions within Bareilly. By including these areas in the initiative, BSCL aims to uplift the overall infrastructure and appearance of these key zones. This transformation brings about substantial improvements in power supply reliability, aesthetic beauty, and safety, ensuring that residents in Bareilly enjoy an enhanced living experience.

The underground cabling project undertaken by BSCL in Bareilly marks a significant milestone in the city's power infrastructure development. This initiative is set to transform Bareilly into a smart and sustainable city.















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