SAFETY AUDIT REPORT ON DTC BUS TERMINALS

SUBMITTED BY:

JAGORI
30 years
1984-2014

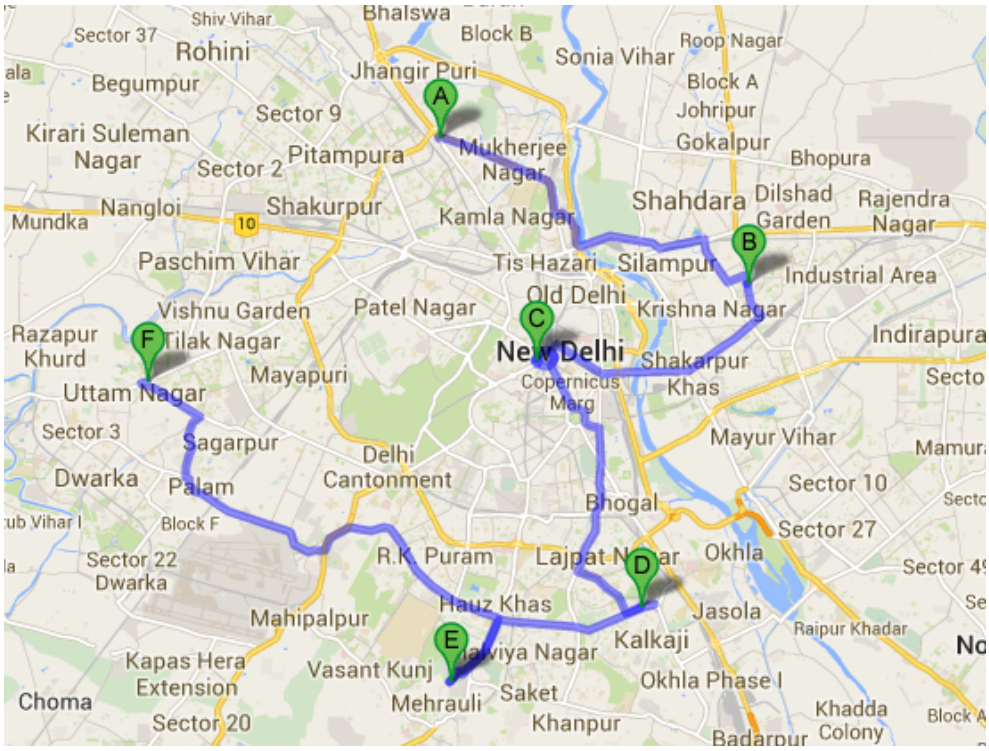
SAFETIPIN
Supporting Safer Communities

Safety Audits DTC Bus Terminals, Delhi

Safety audits were conducted at 6 DTC Bus Terminals in Delhi –

Azadpur Bus Terminal
Shahadra Bus Terminal
Shivaji Stadium Bus Terminal
Nehru Place Bus Terminal
Mehrauli Bus Terminal
Uttam Nagar Bus Terminal

These safety audits were done using the SafetiPin mobile application. Audits at the terminal were conducted in August 2014, between 6- 8 pm, so that the level of light at the terminal could be measured. On an average, 12 safety audits were conducted at each terminal at the main terminal as well as the 30 meters of area outside the terminal.

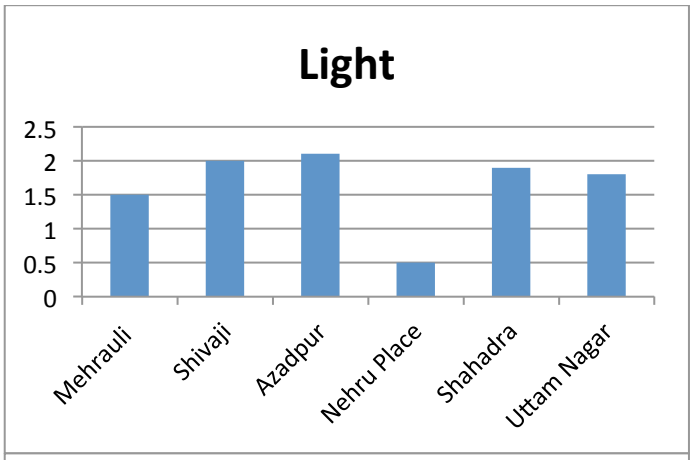


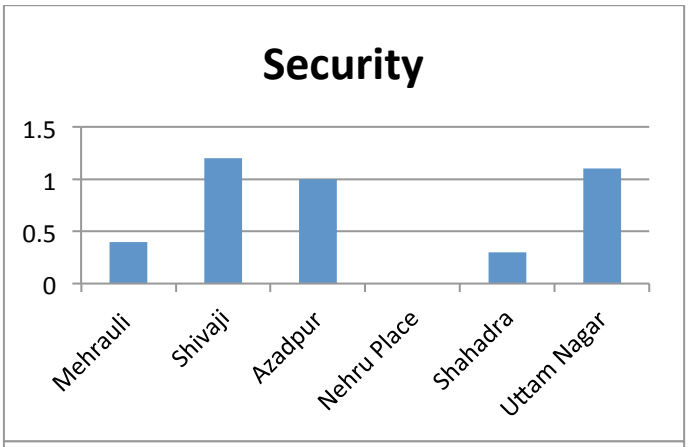
Safety Audit Parameters:

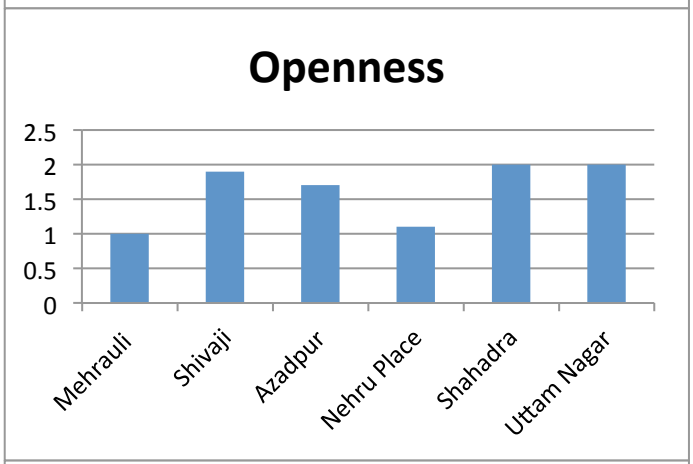
Light – How is the light in the area, dark, poorly lit, enough light or brightly lit
Openness – Is the area open enough for clear line of sight in all directions or are there blind corners.
Visibility – Are there buildings, shops, stalls, and vendors around that overlook at the point where the safety audit is done.
People – Are there people in sight.
Security – Is there visible private security or police in the surrounding area.
Walk Path – Is walk path available and in good condition.

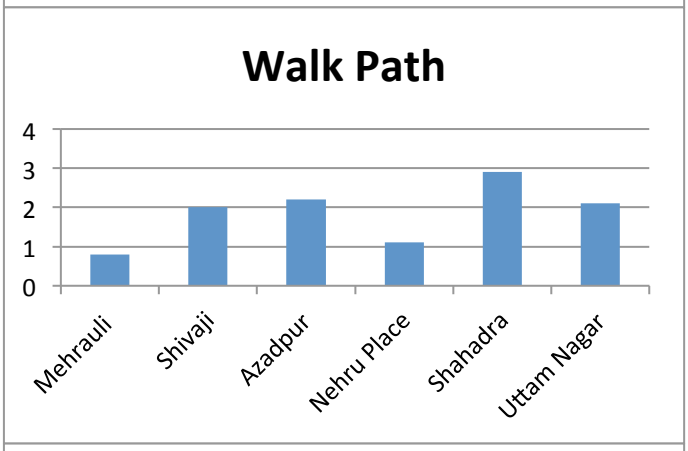
Gender Usage – Are there enough women and children in the crowd to balance the gender diversity.

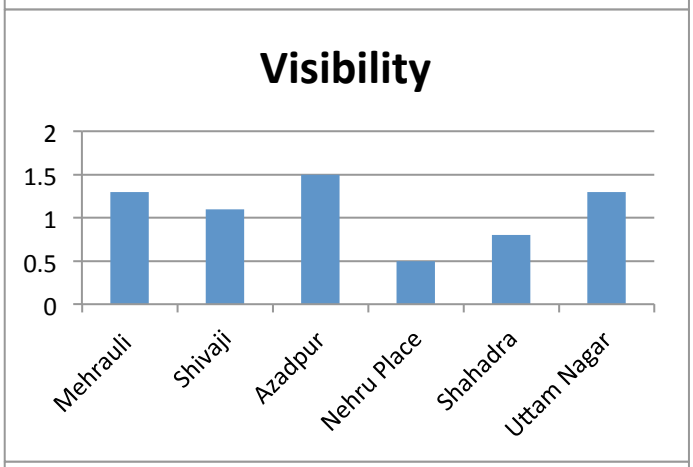
The graphs below represent the average score for each safety audit parameter:

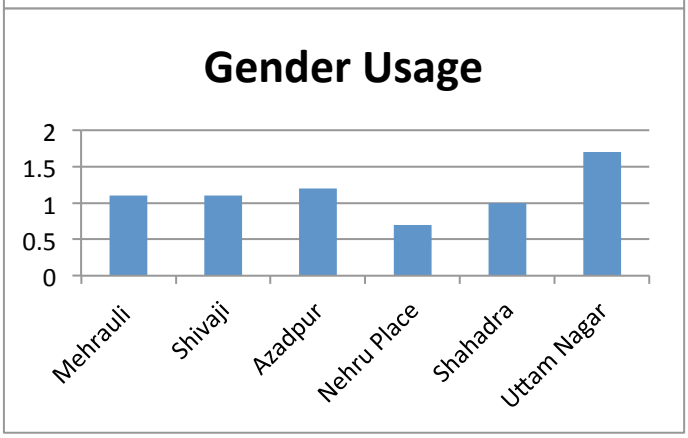


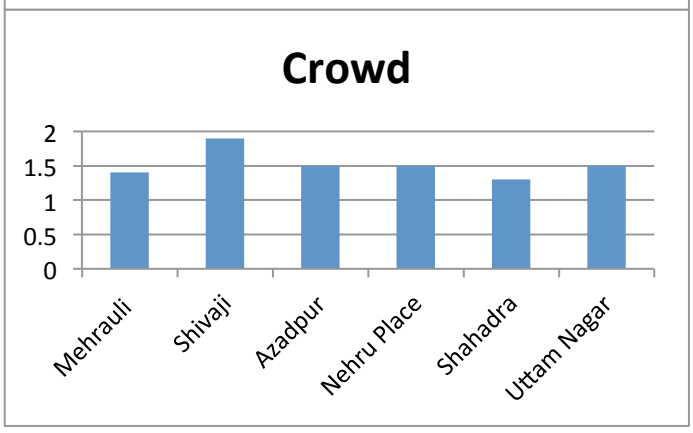












Recommendations for DTC Bus Terminals:

1. Provide proper light at the terminals for clear vision of the area.
2. Appoint security guards to monitor activities at the terminal, which will improve the overall safety of the terminal.
3. Build good walk paths to enable people to access the terminal better. Walk paths with ramps will make the terminal disabled friendly.
4. Provide seating across the terminal to encourage more people, especially women, elderly and children to wait inside the bus terminal.
5. Build public toilets inside the terminal to encourage people to access the main terminal, and use the area. Have stalls or vendors inside the terminal who can overlook at the main terminal and keep an eye on the activities.

Mehrauli Bus Terminal

The image above is a satellite view of the Mehrauli bus terminal in Delhi. The coloured pins on the image are the safety audit pins that explain the safety status of the terminal at and around the marked spots.

The safety audits were done using the SafetiPin mobile app, to identify the key factors that contribute to making the terminal safe/unsafe. Safety audits were done at 12 points after 6 pm so that the level of light could also be measured.

Overall, the terminal can be divided into three areas

- The first area (Entrance) is the path followed by buses entering the terminal. This area has safety audit ratings of 2 and 3. The area is dark, there are no people present and the pavement is broken.
- The second area (Main Terminal) is where buses wait and includes the offices and the park in front. There is ambient light here. However, toilets are closed; there is no gender diversity, and no proper walk path. Rating here is between 4 and 5.
- The third area (Exit) is at the exit of the terminal. There are some shops there and many people wait. The road is also better. The rating here is 6 and 7.

Major Findings:

Area	Av Rating	Description	Comment
Lighting	1.5 – Below Average	Entrance and exit has light because of nearby shops, but inside there is very poor lighting. The park area is also dark.	Lighting inside needs to be improved
Openness	1.0 – Below Average	Since the terminal is covered from two sides and the buses are parked occupying most of the space, the area is open enough.	Acceptable level. No action required
Visibility	1.3 – Below Average	The exit stretch has eating outlets which ensures visibility of people standing inside the terminal. But that is not the case on the entrance stretch.	Since people don't use the entrance much, focus should be on the exit and inside. If the entrance to the ticket area could face the front of the terminal, that would improve visibility.
Crowd	1.4 – Below Average	Crowd is mostly on the exit stretch and outside the terminal waiting to board the buses. Inside it is primarily the DTC staff.	Since people currently do not use the entrance, we suggest focusing on the exit and main terminal. Providing benches for waiting would enhance the number of people.
Security	0.4 – Poor	The terminal had hardly any visible public or private security in the area.	A security guard can be appointed for the bus terminal who can monitor the activities in the terminal and his presence will also discourage incidences of harassment.
Walk Path	0.8 – Poor	Partially constructed walk paths with broken ends.	Repair work should be undertaken on the pathways. Additionally ramps maybe added as well to make the terminal more accessible for people with disabilities.
Gender Usage	1.1 – Below Average	There wasn't much gender diversity as there were very few women present at the shops and exit point of the terminal.	Add benches in the terminal for women to wait for buses.

Our recommendations on the areas are:

- **Well-lit areas:** The Entrance area does not need to be frequented by people and hence improvement is not a priority. It would be useful though to at least ensure that the area is lit.
- **Re-arrangement of terminal office:** If possible, the entrance to the ticketing area and toilets should be from the side facing the front of the terminal to improve visibility and therefore a feeling of safety
- **Provide benches at the terminal:** The Exit area could be fitted with benches for people to sit while waiting for the bus.
- **Re-Open the Public Toilets:** Public toilets in the bus terminal were locked. This had let to the men urinating in the park that is inside the terminal. Coupled with broken walk ways and pavements, it has led to the area becoming very uncomfortable for women and children. We suggest that the public toilets be (re) opened for use and kept clean so that people access them. We also suggest that the park be well lit so that sufficient lighting discourages the men from urinating in the open. If the park is safe it will allow women and children to come and sit inside as they wait for their bus instead of standing outside the bus terminal.
- **Proper Signage:** The signage to the office should also be visible so that people know where it is located.

Azadpur Bus Terminal

The image above is a satellite view of the Azadpur bus terminal in Delhi. The coloured pins on the image are the safety audit pins that explain the safety status of the terminal at and around the marked spots.

The safety audits were done using the SafetiPin mobile app, to identify the key factors that contribute to making the terminal safe/unsafe. Safety audits were done at 11 points after 6 pm so that the level of light could also be measured.

Overall, the terminal can be divided into three areas

- The first area (Entrance) is the path followed by buses entering the terminal. This area has safety audit rating is mostly 6. The area is well lit, there are few people present and walk path is fair enough to walk on.
- The second area (Main Terminal) is where buses wait and includes the offices and the space where passengers board and de-board the buses. There is good light here and diverse crowd. Rating here is between 7 and 8.
- The third area (Exit) is at the exit of the terminal. There are some street vendors at the exit point and many people wait here. The rating here is 8 and 9. It is well lit with adequate crowd around.

Major Findings

Area	Av Rating	Description	Comment
Light	2.1 – Above average	Across the terminal there is good light. Closer to the main road acts as added advantage to lighting in and around the terminal.	No action required.
Openness	1.7 – Above average	The terminal is wide enough for comfortable visibility of the area around.	No action required.
Visibility	1.5 – average	There are small shops and few street vendors outside the terminal that keep an eye on the entrance and exit of the terminal. However, there are no shops or vendors to overlook at the main terminal.	Public toilets inside the terminal will improve the visibility of crowd waiting inside the terminal. Allowing some vendors to sell water etc inside the terminal will also help in visibility.
Crowd	1.5 – average	Main terminal and the exit area has sufficient crowd. The entrance of the terminal is less used by people.	Since there is no purpose for people to access the entrance area of the terminal, no action is required.
Security	1.0 – Below average	There is visible security at the main terminal. However, no security at the two opening points of the terminal.	Considering that the terminal is sizable, it will help to let the security guard patrol the whole area.
Walk Path	2.2 – Above average	Walk paths are available and in good condition.	No action required.
Gender Usage	1.2 – Below average	Women and children occupied mostly the main terminal area. The entrance and exit areas had relatively poor diversity in the crowd.	Infrastructural facilities like public toilets, benches across the terminal etc will encourage women and children to use the terminal more.

Our recommendations on the areas are:

- **Have public toilets and office sign boards**: The Main Terminal should have working toilets and if possible, proper sign boards for offices at the terminal. This will improve the overall comfort level of the terminal.
- **Have Benches inside the terminal:** The main terminal area could be fitted with proper benches for people to sit while waiting for the bus. This will encourage more people, especially women, to wait inside the terminal, making it safer.
- **Security patrolling:** There is little visible security at the entrance and exit area. If possible, security should not be stationary move around terminal.

Shivaji Bus Terminal

The image above is a satellite view of the Shivaji bus terminal in Delhi. The coloured pins on the image are the safety audit pins that explain the safety status of the terminal at and around the marked spots.

The safety audits were done using the SafetiPin mobile app, to identify the key factors that contribute to making the terminal safe/unsafe. Safety audits were done at 10 points after 6 pm so that the level of light could also be measured. .

Overall, the terminal can be divided into three areas:

- The first area is the path followed by the DTC buses to enter and exit the terminal. This area has safety audit ratings of 7 and 8. It has enough light, some crowd on the street and enough shops and street vendor facing towards the terminal. Public toilet is available here.
- The Second area is main terminal where the buses are parked. The safety rating of this area is 4 and 6. There is enough light in the area. However, the crowd is less, with no gender diversity. There are no shops around and NDMC academy is closed.
- The third area is where the passengers wait to board the bus. Safety rating in this area is 7 and 8. There is enough light, sufficient crowd and gender diversity. Walk paths are in good condition.

Major Findings:

Area	Av Rating	Description	Comment
Light	2 – Above average	The terminal is well lit with enough sources of light, both inside and outside	No action required.
Openness	1.9 – Above average	The terminal is open enough. People are able to see in most of the directions.	No action required.
Visibility	1.1 – Below average	There are street vendors and eating joints at the entrance and the area where passengers wait for buses. These vendors keep an eye on the place. However, there are no shops or vendors that overlook the area where the buses are parked.	Since people do not use the area where the buses are parked, no action is required.
Crowd	1.9 – Above average	Overall the terminal is adequately crowded except for the area where buses are parked. There is no crowd beyond the point where public toilets are built.	Since there is no need for the crowd to access the area where the buses are parked, no action is required.
Security	1.2 – Below average	There is minimal private security available at the terminal. There is only one guard in the area where passengers are allowed to wait for the buses.	Considering that the terminal is big enough, it will help to ask the security guard patrol the whole area. This will help monitoring activities across the terminal and improve security.
Walk Path	2 – Above average	Paths are available in every section of the terminal and are in good condition	An alternate positioning of the street vendors within the terminal instead of the walk path will make it barrier free.
Gender Usage	1.1 – Below average	There was a relatively diverse population where the passengers wait for the buses and inside the main terminal.	Adequate infrastructure within the terminal will create a comfortable space for women, elderly and children maintaining the diversity of the terminal.

Our recommendations on the areas are:

- **Appointing security:** Some security should be appointed to ensure the harassment-free environment at the terminal.
- **Putting benches:** Benches should be put around the area where the passengers wait to board the bus.

Nehru Place bus terminal

The image above is a satellite view of the Nehru Place bus terminal in Delhi. The coloured pins on the image are the safety audit pins that explain the safety status of the terminal at and around the marked spots.

The safety audits were done using the SafetiPin mobile app, to identify the key factors that contribute to making the terminal safe/unsafe. Safety audits were done at 13 points after 7 pm so that the level of light could also be measured.

Overall, the terminal can be divided into three areas

- The first area (Entrance) is the path followed by buses entering the terminal. This area has safety audit ratings of 4 and 5. The area is dark, there are few people present just outside the terminal and the pavement is broken.
- The second area (Main Terminal) is where buses wait and includes the sheds where passengers wait for the buses. There is poor light here, the only source being the construction site behind the terminal. Rating here is between 4 and 5.
- The third area (Exit) is at the exit of the terminal. Many people wait near the exit area and there is some diversity in the crowd. The food stalls outside the terminal help in providing visibility of the crowd waiting near the exit. The rating here is between 5 and 6.

Major Findings:

Area	Av Rating	Description	Comment
Light	0.5 – Poor	The only source of light at the terminal is from the construction site behind the terminal. Light poles are damaged and terminal is dark after sunset.	Have proper sources of light at the terminal to improve safety.
Openness	1.1 – Below average	Terminal is not used effectively to accommodate the buses waiting there because of which people are not able to see ahead in all directions.	The rear side of the terminal should be used for parking of the buses to ensure that it doesn't get over crowded and congested at the bus stop inside the terminal.
Visibility	0.5 – Poor	There are a few food stalls outside the terminal that overlook the entrance and exit of the terminal. However, there are no shops to keep an eye on the activities inside the terminal.	If the canteen and public toilets are re-opened, it will help in improving visibility of the main terminal.
Crowd	1.5 – Average	More people wait at the terminal exit. There is little crowd at the entrance and main terminal.	Improving the light and walk path at the terminal will encourage people to wait for the buses inside the terminal.
Security	0 – None	There is a security room at the terminal but no security guard inside or at the terminal was seen.	Appointing a security will help monitoring the activities at the terminal and in general make it a safer place.
Walk Path	1.1 – Below average	A good walk path is available where passengers board the bus. However, the path at the entrance that leads to the main terminal and exit area is broken.	Re-building the walk path in front of the terminal office will allow the crowd to access the facilities well. Also, considering the lack of space at the terminal, good walk paths will reduce chances of accidents at the terminal.
Gender Usage	0.7 - Poor	Gender diversity in the crowd at the terminal was low. Only few women and children were present at the main terminal and exit area.	Opening the public toilets will encourage women and children to access the main terminal area. Overall improved infrastructure will

			also help in improving gender diversity in the crowd.

Our recommendations on the areas are:

- **Appointing Security:** Security guards should be appointed, which will contribute to making the terminal safer.
- **Proper source of light:** Light at the terminal should be improved. Light poles need to be fixed since some of them had no light bulbs or holders missing.
- **Repair the walk path:** Walk path is poor and should be repaired to improve the accessibility of terminal.
- **Re-open public toilets**: Public toilets are available but locked. They should be re-opened for the public at the terminal, which will encourage the people to access more of the main terminal instead of crowding at the exit point. This will improve gender diversity and safety as well.
- There is little space for the buses to enter the terminal. Re-arrangement of the area around the entrance point can reduce the incidences of unfortunate accidents at the terminal.
- In the above map of Nehru Place bus terminal, the red pin with score 2 is the area near the exit, where buses had overcrowded the space, the area was littered and men were seen urinating. Proper lighting and open public toilets will discourage such activities at the terminal.

Shahadra Bus Terminal

The image above is a satellite view of the Shahadra bus terminal in Delhi. The coloured pins on the image are the safety audit pins that explain the safety status of the terminal at and around the marked spots.

The safety audits were done using the SafetiPin mobile app, to identify the key factors that contribute to making the terminal safe/unsafe. Safety audits were done at 10 points after 7 pm so that the level of light could also be measured.

Overall, the terminal can be divided into three areas

- The first area (Entrance) is the path followed by buses entering the terminal. This area has safety audit ratings of 6. The area is well lit and the walk path is in good condition. However, the security and crowd is low.
- The second area (Main Terminal) is where buses are parked and includes passengers waiting to board the bus. There is enough light here. However, there is no security and visibility of the crowd inside the terminal. Rating here is between 5 and 6.
- The third area (Exit) is at the exit of the terminal. There are some street stalls there and many people wait. The road is also good. The rating here is 7 and 8.

Major Findings:

Area	Av Rating	Description	Comment
Light	1.9 – Above average	Overall the bus terminal is well lit with light poles functioning. The terminal offices are also well lit and there is ample light from the street lights from main road.	No Action required.
Openness	2.0 – Above average	The terminal is quite open. People are able to look in most of the directions.	No action required.
Visibility	0.8 – Poor	There are few food stalls outside the terminal that overlook the entrance and exit of the terminal. However, there are no shops to keep an eye on the activities inside the terminal.	If we can move the terminal offices a little to the front, the people looking after the office can easily overlook the main terminal. This will improve visibility of the crowd inside the bus terminal.
Crowd	1.3 – Below average	There is considerable crowd at the exit of the terminal. However, there are only few people at the entrance and main terminal area.	Having public toilets and stalls that sell water etc will encourage the crowd to access the main terminal area.
Security	0.3 – Poor	There is no visible security at the terminal. The only known security is at the shops across the street.	Appointing a security guard will ensure safety at the terminal and encourage more people to use the main terminal.
Walk Path	2.9 – Excellent	Walk path is well constructed and comfortable to walk on, without any interference.	No action required.
Gender Usage	1.0 – Below average	Gender diversity in the crowd at the terminal is low at the main terminal and entrance. Despite the benches available, women and children chose to use benches available near the exit area	Having public toilets and food stalls will encourage more women and children to access the main terminal area.

Our recommendations on the areas are:

- **Appointing security:** Patrolling by security guards at the terminal should be considered since the visibility of crowd inside the main terminal is low and gender diversity is not good.
- **Building public toilets:** Crowd and gender diversity inside the terminal can be improved by having public toilets.

Uttam Nagar DTC Bus Terminal

The image above is a satellite view of the Uttam Nagar bus terminal in Delhi. The coloured pins on the image are the safety audit pins that explain the safety status of the terminal at and around the marked spots.

The safety audits were done using the SafetiPin mobile app, to identify the key factors that contribute to making the terminal safe/unsafe. Safety audits were done at 13 points after 7 pm so that the level of light could also be measured.

Overall, the terminal can be divided into three areas

- The first area (Entrance) is the path followed by buses entering the terminal. This area has safety audit ratings of 8 and 9. The area is well lit and the walk path is in good condition.
- The second area (Main Terminal) is where buses are parked and includes passengers waiting to board the bus. There is ambient light here. However, offices at the terminal are locked. Rating here is between 5 and 6.
- The third area (Exit) is at the exit of the terminal. There are some street stalls there and many people wait. The road is also good. The rating here is 7 and 8.

Major Findings:

Area	Av Rating	Description	Comment
Light	1.8 – Above average	Light across the terminal is good. Facing the main road gives it an added advantage of light from outside the terminal as well.	No action required.
Openness	2.0 – Above average	The terminal is wide and open and people are able to look around in most directions.	No action required.
Visibility	1.3 – Below average	Small shops outside the terminal can keep an eye on the activities at the entrance and exit of the terminal. However, there are no shops or vendors overlooking inside the terminal.	Re-opening the terminal offices will improve the visibility is crowd inside the main terminal.
Crowd	1.5 – Average	There is less crowd at the entrance and main terminal area. Main terminal area is wide and the crowd is scattered in small groups. More people wait near the exit of the terminal.	Since people currently do not use the entrance, we suggest focusing on the exit and main terminal. Having functional toilets and proper security will give more and safer accessibility to the crowd.
Security	1.1 – Below Average	There is no visible security at the terminal.	Appointing security guards will improve the overall safety of the terminal and encourage more people to wait inside the terminal.
Walk Path	2.1 – Above average	Overall the walk path at the terminal is good.	No action required.
Gender Usage	1.7 – Above average	Women and children mostly access the space around the entrance and exit of the terminal, as compared to the main terminal.	Having public toilets and benches to sit inside the terminal will encourage women and children to wait for the buses at the main terminal.

Our recommendations on the areas are:

- **Improve Security:** Appointing security for the terminal should be considered since the visibility of crowd inside the main terminal is low.
- **Functional offices and public toilets:** Crowd and gender diversity inside the terminal can be improved by having functional offices and public toilets.

Mehrauli Bus Terminal

Walk Path near the exit area

Walk Path near the terminal office

Azadpur Bus Terminal

Light inside the terminal

Crowd at the terminal

Nehru Place Bus Terminal

No light inside the terminal

Bad walk path at the terminal

Broken light holder inside the terminal

Shahadra Bus Terminal

Crowd inside the terminal

Light at the terminal

Uttam Nagar Bus Terminal

Light at the terminal

Terminal offices near the entrance