

# Accessibility and Safety Audit for Persons with Disabilities at BUET

Plan 446

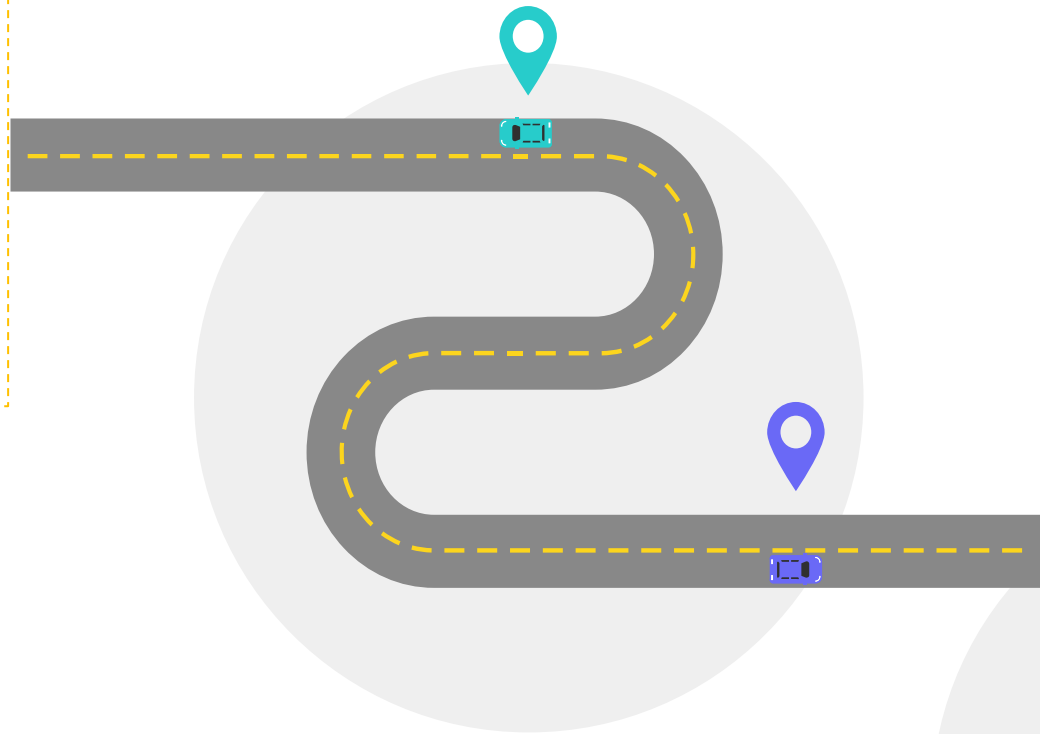
Transportation Planning Studio

Level-4 Term-1

Presented by

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## *Accessibility and Safety Audit*



- **Persons with disabilities** should have **equal and equitable access** to services as available to persons without disabilities.
- It's essential to **acknowledge potential risks and hazards** that might harm people with disabilities.
- Therefore, **accessibility and safety** are **important factors of disability inclusion**.

*Standards/Guideline Followed Globally/Nationally for Accessibility and Safety Indicators*

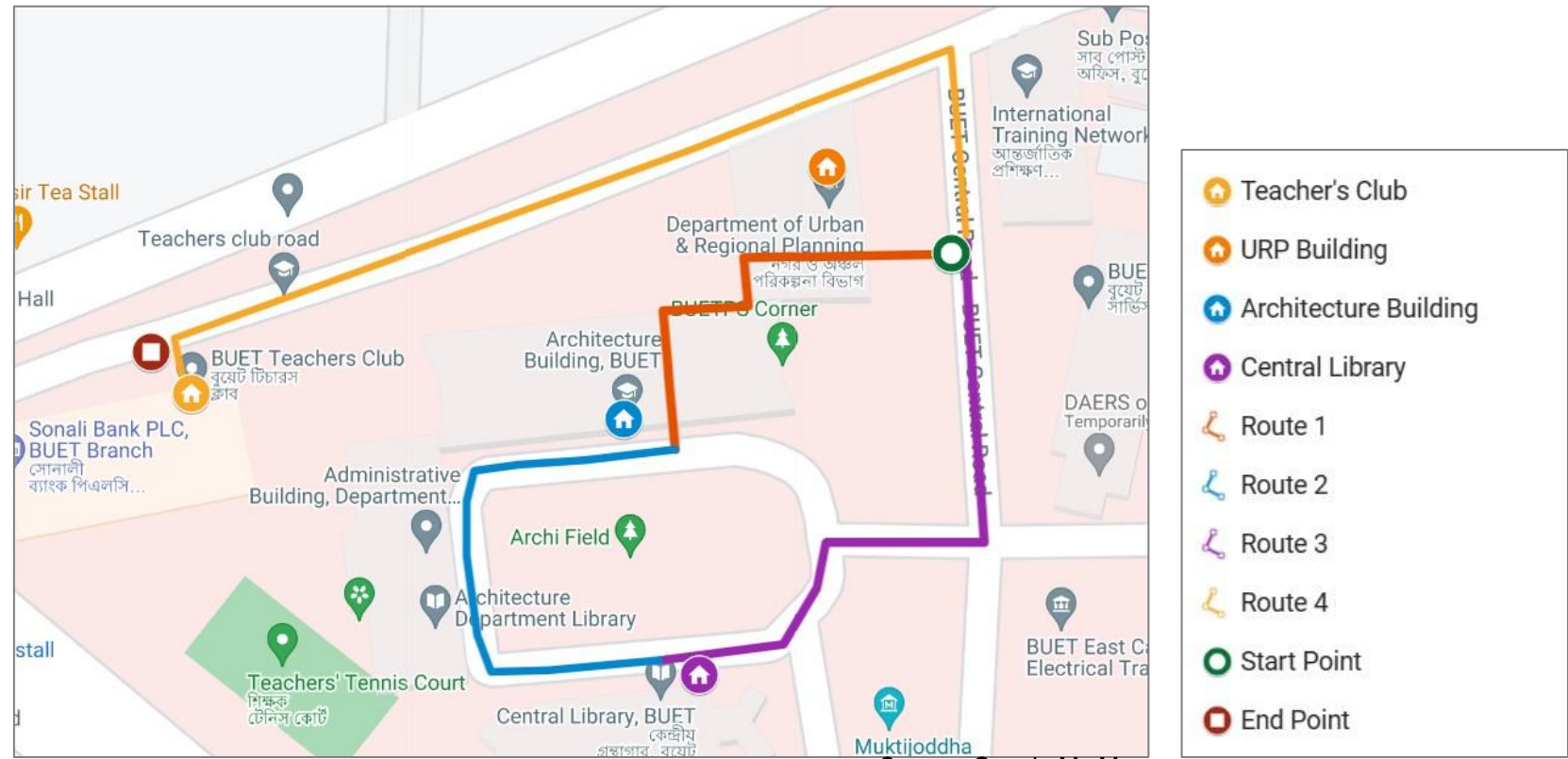
Bangladesh National Building Code, 2020

# Accessibility, Safety and SDGs


Several SDGs reference disability, including **SDG 4** and **SDG 11** which specifically mention disability in relation to accessibility

Goal		Goal	
<div>4</div> <div>QUALITY EDUCATION</div> <div></div>	<div><b>Target</b></div> <div>By 2030, provide <b>access to safe, affordable, accessible and sustainable transport systems</b> for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with <b>disabilities</b> and older persons</div>	<div>11</div> <div>SUSTAINABLE CITIES AND COMMUNITIES</div> <div></div>	<div><b>Target</b></div> <div>By 2030, eliminate gender disparities in education and ensure equal <b>access</b> to all levels of education and vocational training for the vulnerable, including persons with <b>disabilities</b>, indigenous peoples and children in <b>vulnerable situations</b></div>
<div>Ensure <b>inclusive</b> and <b>equitable</b> quality education and promote lifelong learning opportunities for all</div>		<div>Make cities and human settlements <b>inclusive, safe, resilient and sustainable</b></div> <div>Source: UNDP,2023</div>	


# Route Map of Accessibility and Safety Audit




Source: Google My Map

 **Route 1:** Department of URP to Department of Architecture

 **Route 2:** Architecture Building to Central Library BUET

 **Route 3:** Central Library, BUET to Department of URP

 **Route 4:** Department of URP to BUET Teachers' Club

# Route 1: Department of URP to Department of Architecture

**Location :** In front of Department of URP



No Parking Space designated for Disable People

## Accessibility Indicator : Parking

Number of Parking Spaces for Disable People	×
Signs	×
Slope	×
Vehicular entrance	×

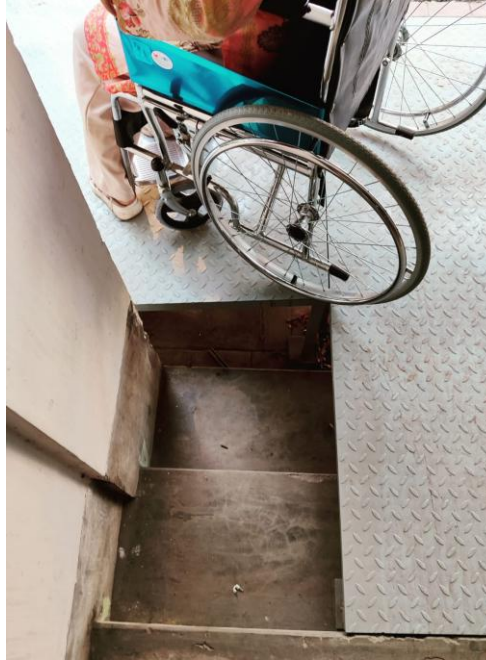
Source: Field Survey, 2023

# Route 1: Department of URP to Department of Architecture

**Location :** In front of Department of URP



Difficulty in Accessing the Ramp without Assistance



Safety issue: Hollow space beside edge

## Accessibility Indicator : Exterior Ramp

Running Slope	1:9 (standard 1:12, MoHPW, 2020)
Width	3 ft.
Ramp Surface	Slip Resistant
Landings	Free of obstruction
Presence of Guard	✓
Lighting	✓

Source: Field Survey, 2023



## Route 1: Department of URP to Department of Architecture



Door 1

Opening door easily operable



Door 2

### Accessibility Indicator : Exterior Door

	Location : In front of URP	Location: Back of URP
Width	5 ft.	3.5 ft.
Signage	×	×
Number of Entrances	1	1
Threshold	×	×
Opening Doors (One side)	✓	✓
Presence of Revolving Door	×	×
Emergency Exit	×	×
Door Handle	Easily Operable	Easily Operable

- Minimum Requirement of Door Width : 4 feet

# Route 1: Department of URP to Department of Architecture

**Location :** Inside Department of URP



Adequate Width for Entering



Operating Controls within Reach

## Accessibility Indicator : Lift

Platform	Levelled
Entrance Width	3 feet (Standard)
Operating controls	Within Reach
Lift use	15 seconds (Enough for entering)
Turning Space inside lift	Not enough

Source: Field Survey, 2023



# Route 1: Department of URP to Department of Architecture

**Location :** Back side of Department of URP



**Accessibility Indicator : Exterior Ramp**

Presence of Ramp

×

Source: Field Survey, 2023

## Route 1: Department of URP to Department of Architecture



**Accessibility  
Indicator : Exterior  
Pathway**

Source: Field Survey, 2023

Width	7.5 feet (Minimum Standard 4 feet)
Barrier free pathway	✓
Planting	✓
Lighting	Proper
Stable, strong, weatherproof	✓



## Route 2: Architecture Building to Library



Difficulty in using the ramp for wheelchair users



Water logged after rain



Uneven landings: Safety issue for wheelchair users

## Accessibility Indicators : Exterior Ramp

Source: Field Survey, 2023

Running Slope	1:9.5 ( <b>standard 1:12</b> , MoHPW, 2020)	Landings	<b>Uneven Surface</b>
Width	3.3ft	Presence of Guard	✓
Ramp Surface	Textured	Location	Front of Building
Ramp edges	✗	Lighting	Proper lighting during Night

# Route 2: Architecture Building to Library

**Location :** Ground Floor, Department of Architecture, BUET



## Accessibility Indicators: Washroom

Number of Washroom	1
Signage, Flush Controls, Toilet Paper Dispenser, Mirror, Lighting	✓
Width	2.10 ft.
Door	One side revolving
Space around the toilet	✗
Ablution Space	Not reachable for physically disabled people

## Lift

Weight Capacity	1050
Lift Platform	Raised
Operating Controls	Easily operable
Call-send controls	Operable
Lift Use	15 Seconds
Lift Entrance	Not easily accessible for wheelchair user

Source: Field Survey, 2023



## Route 2: Architecture Building to Library

**Location :** In front of Department of Architecture, BUET



Source: Field Survey, 2023

Water logged after rain

**Safety Indicator**

Drainage

Poor



# Route 2: Architecture Building to Library

**Location :** In front of Department of Architecture, BUET and Central Library, BUET



## Accessibility Indicator: Exterior Furnishing

Number of seat arrangements	6
Seating Space	For 5/7 people
Surface height	Moderate
Pathway	Unpaved
Stability	Stable

# Route 2: Architecture Building to Library

**Location :** In front of Department of Architecture, BUET



Signage of Parking



Speed Limit Sign



Source: Field Survey, 2023

## Safety Indicators

Roadway Width	17ft., 17.5ft.
Shoulder	×
Radial Bend of Roads	11 ft.
Road Surface	Textured
Speed limit sign	✓
Sign Readability	✓
Sign Locations	Beside Road

Road markings	×
Street lighting	Not enough lighting during night
Overtaking facilities	×
Vehicle type restrictions	×
On street parking	✓
Designated Parking	✓



# Route 3: Central Library, BUET to Department of URP

**Location :** In front of *Central Library, BUET*



## Accessibility Indicator : Exterior Ramp

Presence of Ramp	×
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Central Library is not Accessible for Disable People

Source: Field Survey,2023

**Location :** Ground Floor, *Central Library, BUET*



## Accessibility Indicator : Lift

Lift	Under Repair
Interior Ramp	×

*Central Library, BUET is not accessible for physically challenged people*

# Route 3: Central Library, BUET to Department of URP

**Location :** Ground Floor, Central Library, BUET



Washroom only accessible to Staffs



Unreachable

## Accessibility Indicator : Washroom

Number of Washroom	1
Entrance	Elevated
Signage	✓
Flush Controls	✓
Toilet Paper/ Dispenser	✓
Mirror, Lighting	✓
Width	Inadequate
Door	One sided revolving
Space around the toilet	✗
Ablution Space	Not reachable by physically disabled people

Source: Field Survey,2023

## Route 3: Central Library, BUET to Department of URP



Figure 01: Broken Surface on Road

Figure 02: Rough surface

Figure 03: Difficulty while operating wheelchair

### Safety Indicators

Roadway Width	11 feet
Shoulder	×
Speed Bump	×
Road Surface	Broken and rough Surface
Signs	Destination indicating Architecture and OAB

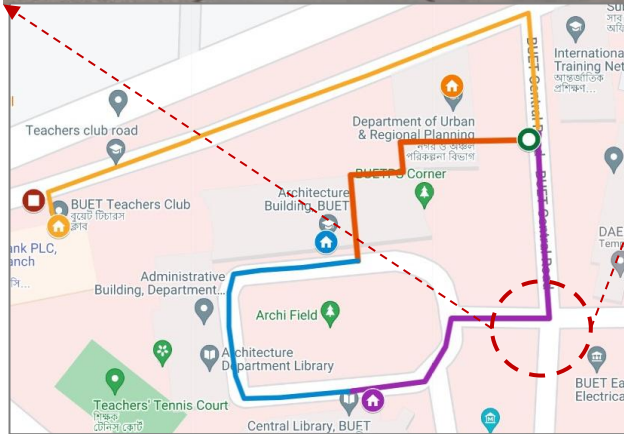
Road markings	×
Street lighting	Proper Lighting during Night
Overtaking facilities	×
Vehicle type restrictions	×



## Route 3: Library to URP building



Source: Field Survey, 2023



Source: Google Map

### Safety Indicators

Volume of traffic (vehicles/3 min) Time: 10:00am	<b>20 Vehicles.</b> 8 cars, 2 motorcycles, 3 microbuses, 5 rickshaws, 2 cycles
Speed Limit, Traffic Sign	✗
Overtaking facilities, Overtaken tendency	✗
On street parking	✓
Vehicle type restrictions	✗

## Route 3: Central Library, BUET to Department of URP



Figure 01: Broken Surface on Road



Figure 02: Trapezoidal Speed Bump



Figure 03: Difficulty while operating wheelchair

### Safety Indicators

Roadway Width	15 ft.
Shoulder	×
Speed Bump	Trapezoidal, <b>not easily operable for wheelchairs</b>
Road Surface	<b>Broken Surface</b>
Signs	×

Road markings	×
Street lighting	Proper Lighting during Night
Overtaking facilities	×
Vehicle type restrictions	×



## Route 4: Department of URP to BUET Teacher's Club



Designated Parking Area



Improper signage: Not easily visible

## Safety Indicators

Designated Parking	✓
Sign Locations	Beside Road
Sign Readability	Poor
Vehicle type restrictions	✗
Speed Limit	✗

Source: Field Survey, 2023

## Route 4: Department of URP to BUET Teacher's Club

### Accessibility Indicators



Entrance of Teachers Club: Difficulty in using the ramp for wheelchair users

Source: Field Survey, 2023

### Exterior Doorway

### Exterior Ramp

Signage	×	Running Slope	1: 5.5 (standard 1:12, MoHPW, 2020)	Landings	Proper
Number of Entrances	1	Width	3	Presence of Guard	✓
Presence of Revolving Door	×	Ramp Surface	Textured	Lighting	Proper lighting during Night
		Ramp edges	×		

## **References:**

Ministry of Housing & Public Works. (2020). Bangladesh National Building Code, 2020. GoB of Bangladesh.