



योजना तथा वास्तुकला विद्यालय : नई दिल्ली
SCHOOL OF PLANNING AND ARCHITECTURE, NEW DELHI
शहरी नियोजन एवं अभिकल्प में उत्कृष्टता केन्द्र
Centre of Excellence in Urban Planning and Design



Tender Note

Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi, would like to invite bids from experienced survey agencies for carrying out land use, household and traffic & transportation for **GIS Based Master plan Under AMRUT 2.0 for Kargil, Leh Planning Area and Total Station Survey for 30km stretch in Delhi.**

The required land use, household and traffic & transportation surveys to be conducted by the agency are divided into various work packages as per detailed attached herewith. All the surveys are expected to be finished within overall time frame of three weeks from date of initiation as per schedule provided by Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi.

As a part of this effort, Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi will evaluate the received bids from various survey agencies and appoint the selected survey agencies. The process of evaluation of bids (under two bid system - technical and financial) shall take into account the financial quote as part of the bid only of the technically qualified agencies for various work packages. Based on the evaluation the selected agency shall receive the work order from Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi. **Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi decision would be final in this regard to award the work in single package or multiple packages to L1 bidder in respective packages.**

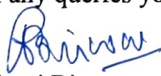
All necessary payments to the appointed survey agency as per the work order shall be processed and paid by Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi based on satisfactory on conduct and submission of survey report.

The necessary scope of work of various survey work packages along with the survey location details is attached herewith.

In case you are interested for this assignment you may note the following

- Submit your quotation in hardcopy to the below address latest by **5:00 pm 4th August 2026** to COE-UPD office at SPA – New Delhi.
- Professional experience exhibiting your technical capabilities to undertake the assignment.
- Technical proposal and financial proposal should be in separate closed envelope for each work package.
- The selected agency shall be informed about its selection latest by **7th August 2026** by email.

In case of any queries you are free to contact me r.biswas@spa.ac.in


Dr. Rabidyuti Biswas
Project Coordinator
Centre of Excellence (CoE),
School of Planning and Architecture 4-
8, I.P Estate
New Delhi-110002

Project 1 and 2: GIS Based Master plan Under AMRUT 2.0 for Kargil and Leh Planning Area

Terms of Reference:

1. Objective of the study:

The objective of the task is to conduct the land use, household and traffic & transportation surveys in and around the Kargil and Leh Planning area on both weekday & weekend. Origin & Destination coding of the collected samples shall be done as per the zone strategy provide by Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi.

2. Scope of work

Carrying out various surveys as detailed in the table summary by adhering to the survey objectives, survey time period, terms & conditions, payment schedule and checklist which are mentioned in detail in the sections 2, 3, 4, 5 and 6. Submit the quotation and technical experience as per the details mentioned in the section no. 5 & 6.

2.1 Study area and location map

The study area is Leh Planning Area in the Union territory of Ladakh. The project under consideration is a GIS Based Master plan Under AMRUT 2.0 area where the study involves land use, household and traffic & transportation surveys of all available modes of transport which includes Bus and Road. The below mentioned table and picture summarizes the highway corridors for the traffic study. The below Maps depicts the study Area of Leh for GIS Based Master plan Under AMRUT 2.

The entire surveys are planned for completion in the duration of three weeks (21) days including data coding and processing from the start of the project.

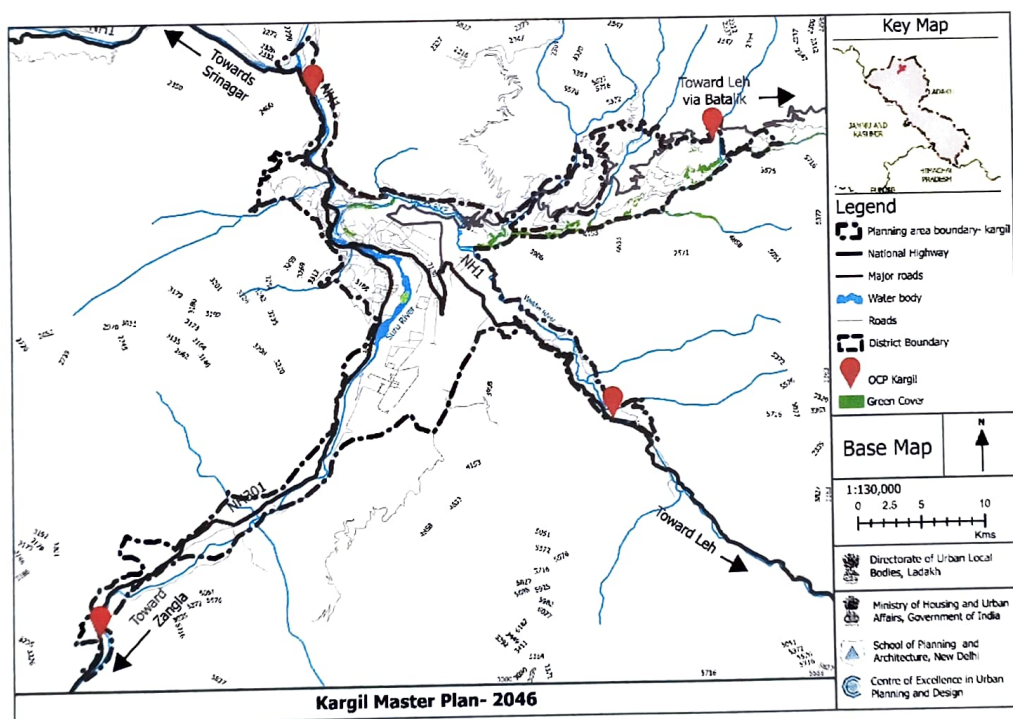
Table 1: List of Primary Surveys for Kargil Planning Area

S.No.	Description	No. of Locations	Units	Time of Survey (Hrs)
1	Traffic Volume Counts at Outer Cordons	4	Number	24
2	Traffic Survey for Mid-Block Locations	12	Number	16
3	Origin-Destination Survey at Outer Cordons	4	Number	24
4	Turning Moment Count	3	Number	16
5	Turning Moment Count	1	Number	72
6	Household Survey	300	Number	As per Condition
7	Road Network Inventory	120	Kilometers	As per Condition
8	Parking Survey	5	Kilometers	As per Condition
9	Pedestrian Survey	5	Number	16
10	Terminal Survey	1	Number	16
11	IPT Operator Survey	100	Number	As per Condition
12	Tourism Perception Survey	200	Number	As per Condition
13	Terminal user survey	100	Number	As per Condition
14	IPT user survey	200	Number	As per Condition
15	Establishment/Commercial Survey	200	Number	As per Condition

Table 2 List of Primary Surveys for Leh Planning Area

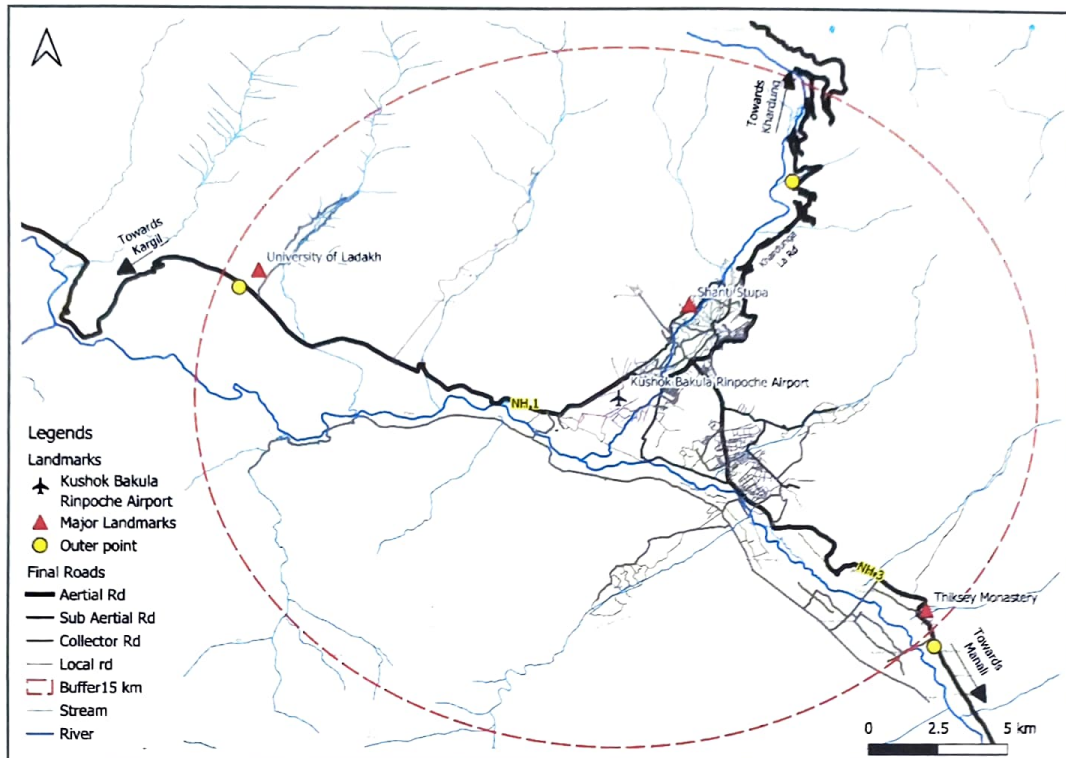
S.No.	Description	No. of Locations	Units	Time of Survey (Hours)
1	Traffic Volume Counts at Outer Cordons	3	Number	24
2	Traffic Survey for Mid-Block Locations	12	Number	16
3	Origin-Destination Survey at Outer Cordons	3	Number	24
4	Turning Moment Count	3	Number	24
5	Turning Moment Count	1	Number	72
6	Household Survey	600	Number	As per Condition
7	Tourist Perception Survey	500	Number	As per Condition
8	Road Network Inventory	200	Kilometers	As per Condition
9	Parking Survey	6	Number	16
10	Pedestrian Count Survey	6	Number	16
11	Terminal User Survey	200	Number	As per Condition
12	IPT Operator Survey	100	Number	As per Condition
13	IPT user survey	300	Number	As per Condition
14	Establishment/Commercial Survey	200	Number	As per Condition

Figure 1 Outer Cordon Points in Kargil City



Pin

Figure 2 Outer Cordon Points in Leh City



3. Survey Objective

a) Manual Classified Counts

Classified vehicle and person travel volume counts shall be conducted at identified locations for a continuous period of 16 hours (07.00 to 23 hours) along mid-block locations. The following data will be collected:

- Category wise at 15 minutes interval flow by direction
- Variation in flow before, during and after the peak.
- Occupancy of vehicles on Sample Basis For every hour

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

b) Video Count Classified Counts

Classified vehicle and person travel volume counts shall be conducted at identified locations in video counting method for a continuous period of 16 hours (07.00 to 23 hours) along mid-block locations. The following data will be collected:

- Category wise at 15 minutes interval flow by direction
- Variation in flow before, during and after the peak.
- Occupancy of vehicles on Sample Basis For every hour

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

c) Turning Movement Classified Counts (Video Counting)

Classified vehicle and person travel volume counts shall be conducted at identified locations for a continuous period of for a continuous period of 16 hours (07.00 to 23 hours). The following data will be collected:

- Category wise at 15 minutes interval turning movement
- 15 minutes interval turning movement of Pedestrians
- Variation in flow before, during and after the peak.

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

d) Traffic Volume Count at Outer Cordon Point (Video Counting)

Classified vehicle and person travel volume counts shall be conducted at identified locations for a for 24 hours (6.00am day 1 to 6.00 am day 2) to including the morning and evening peak hours. The following data will be collected:

- Category wise hourly flow
- Variation in flow before, during and after the peak.

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

e) Parking Survey

Important work and business centers, shopping complexes are major generators of parking demand. Parking demand should be established by a manual count of each vehicle type where there is significant on-street parking occurs. As per the sire requirement, registration plate survey or accumulation survey to be done deploying sufficient manpower.

f) Origin-Destination Survey

Origin-destination surveys shall be conducted through roadside interviews on outer cordon for 24 continuous hours on a normal working day. Travel counts at survey locations to be done simultaneously to facilitate adjustment for sampling. The information shall be obtained by trained enumerators and experienced supervisors and include: type of vehicle, type of commodity carried, origin and destination, trip purpose, place of residence and employment of road user and frequency of travel. Based on the survey, travel desire pattern will be established. Minimum sample to be achieved is 25 % of the total traffic in each category of vehicle.

g) Household Survey

This survey is to collect data on travel characteristics of household residents and general characteristics of the household influencing trip making. The study area will be divided into zones. A sample size required as per standard transport planning procedures or minimum of 2 % of household is about 5750 for Kargil and 36457 household for Leh as per the current household size should be covered. Based on the survey, travel demand characteristics will be established.

h) Pedestrian Survey

Pedestrian surveys will be carried out to assess flows/demand at identified important market areas, intersections and road corridors. The survey shall be conducted on a normal working day and is to detail the number of pedestrians moving along and across the road at mid-block and at intersections. The surveys will be carried at important streets.

i) Tourist Perception Survey

This survey shall be conducted through structured interviews/questionnaires administered to tourists at key attraction points, hotels and transit locations to assess their travel patterns, mode preferences, trip purpose, length of stay, satisfaction with existing transport facilities and problems faced while travelling within the study area. The survey shall capture tourist origin, mode of arrival, intra-city travel behaviour and willingness to use public transport, which will help in assessing tourism-related travel demand and in planning transport facilities catering to tourist movement.

j) IPT user Survey

This survey shall be conducted among users of Intermediate Public Transport (IPT) modes such as auto-rickshaws, taxis and shared vehicles, at major stands and pick-up/drop-off points, through structured questionnaires. The survey shall record trip origin and destination, purpose of travel, fare paid, waiting and travel time, frequency of use and reasons for choosing IPT over other modes. The information gathered shall assist in understanding the role of IPT in meeting last-mile and feeder connectivity needs within the study area.

k) Terminal User survey

This survey shall be conducted through structured questionnaires administered to passengers at the identified bus/transport terminal to capture information on trip origin and destination, purpose of travel, mode of access to the terminal, waiting time, and frequency of use. The survey shall also record users' perception of terminal facilities such as seating, signage, safety, cleanliness and ease of access, helping to assess passenger satisfaction and identify improvements needed at the terminal.

l) IPT Operator Survey

This survey shall be conducted through structured interviews with public transport (bus) and IPT operators to gather information on fleet size and condition, routes operated, frequency of service, ridership levels, revenue and operating costs, and problems faced in operations such as congestion, lack of terminal/parking facilities and route-level constraints. The survey shall help in understanding the supply-side characteristics of the existing transport system and in assessing the viability and requirements for route rationalisation and service improvement

m) Establishment/Commercial Survey

This survey shall be conducted through structured interviews with commercial and business establishments (shops, offices, markets, etc.) along the study corridors to collect data on type of establishment, floor area, number of employees, customer footfall, operating hours, and parking/loading arrangements. The information gathered shall help assess trip generation characteristics of commercial land uses and their contribution to overall traffic demand in the study area.

Project 3: Enhancing Urban Mobility and Accessibility: Development of Corridors in Delhi (30 km Stretch)

Terms of Reference

Objective of the study:

The objective of the task is to carry out a detailed Total Station Survey for the identified 5 corridors (approx. 28.55 km) in Delhi, covering Central and South districts, for the purpose of engineering assessment, detailed design and preparation of GIS-based corridor improvement plans under the mobility and accessibility enhancement project.

Scope of Work

Carrying out a comprehensive Total Station Survey for all 5 corridor stretches listed in Table 3, covering the entire Right of Way (ROW) of each corridor, and capturing the existing ground conditions, levels and features required for engineering design.

Table 3 : Pilot Corridors for Implementation in Delhi

S. No.	Name of Corridor	Length (km)	From (approx. coordinates)	To (approx. coordinates)	District
1.	Minto Road-ITO-Vikas Marg - Kadkardooma	8.6 km	28°38'07.02"N 77°13'17.50"E	28°38'38.74"N 77°17'55.37"E	Central
2.	Minto Road-Aruna Asif Ali Road-Jawahar Lal Nehru Marg Delhi Gate	5 km	28°38'07.02"N 77°13'17.50"E	28°38'37.23"N 77°13'39.94"E	Central
3.	Netaji Subhash Marg (old Delhi)-Shantivan Marg-Raja Ram Kohli Marg-MG Marg (along Yamuna)-ITO-IP Estate Metro Stn	5.75 km	28°37'14.09"N 77°14'59.65"E	28°38'59.27"N 77°14'20.40"E	Central
4.	Vasant Kunj – Nelson Mandela Marg – Munirka	3.2 km	28°31'45.52"N 77°08'54.89"E	28°33'12.40"N 77°09'59.02"E	South
5.	Madhuban Chowk – Rohini Sector 24	6 km	28°42'14.76"N 77°07'50.74"E	28°44'17.73"N 77°04'56.14"E	South
	Total Length	28.55 km			

Survey Objective: Total Station Survey

The Total Station Survey shall be conducted for the entire length of each of the 5 identified corridors and shall include the following:

- Detailed topographic survey covering the full Right of Way (ROW) width of each corridor, including carriageway, median, footpath and any additional right of way available.
- Cross-sections to be taken at regular intervals (every 20-25 m, or closer at critical locations such as intersections, curves and junctions).
- Longitudinal section/levels along the centerline of the road for each stretch.
- Location and levels of all existing physical features including footpaths, medians, road dividers, kerbs, drains, culverts, utility ducts, manholes, streetlights, electric poles, transformers, trees, bus stops, subways/FOBs, and any other street furniture.
- Identification and mapping of existing carriageway width, encroachments, and available ROW at each chainage.
- Details of intersections/junctions along the corridor including geometry, turning radii and traffic islands.
- All survey data shall be geo-referenced (with coordinates as indicated in Table 3) and shall be submitted in both hard copy (plotted drawings) and soft copy (AutoCAD/GIS-compatible format).
- Benchmark levels shall be established and tied to a permanent reference point for each corridor.

Deliverables

- Total Station survey data (raw + processed) for all 5 stretches
- Plan and cross-section drawings (in AutoCAD/GIS format) for each corridor
- Digital Terrain Model (DTM), where required, for design purposes
- Survey report summarizing methodology, benchmarks and key findings for each of the 5 corridors

4. Time period of completion

- Surveys to be commenced from the date specified after the approval from the approving authority and should be completed within 21 days from the date of start of work this shall include the data coding and processing.

- Data Coding, punching (converting it to soft copy) shall be carried out simultaneously at site and in no case deliverables of the soft copies shall be beyond 5 days after the completion of the respective survey.

Any suggestion/correction should be incorporated and submitted in 3 days' time from the date of issuing the work order.

5. Terms and condition

- 1) A team of trained and experienced Supervisors shall be present at all times at all the survey locations.
- 2) As mentioned in the survey plan, the mentioned number of enumerators shall be placed at all the survey locations for all the days of the surveys.
- 3) All the survey forms in hard copies for conducting all traffic surveys and stationery items (pens, pads etc.) shall be procured by the traffic survey agency
- 4) All the necessary infrastructure required for smooth conduct of surveys such as safety jackets, lighting (for night times or low light conditions), temporary seating.
- 5) arrangements, tents, traffic cones, batons, etc. Should be provided by the survey agency and it is the responsibility of the survey agency to maintain the same for the whole duration of the surveys.
- 6) All the traffic survey enumerators and supervisors should be well trained and experienced before the start of each survey. The mandatory age of all the enumerators shall be minimum as prescribed and applicable by the local laws.
- 7) Manpower deployment should be as per commitment. Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi reserves the right to conduct checks at random, and in case of any discrepancy, you would have to repeat that particular survey on the same day of the week and the cost of the repeated survey will be borne by the survey agency.
- 8) Data Coding and punching in MS Excel has to be done for all the traffic surveys in the English language only and submitted vide e-mail within the stipulated time agreed prior to the commencement of survey.
- 9) In case Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi is not satisfied with the quality of the data, you may be asked to repeat that particular survey on the same day of the week and the cost of the repeated survey will be borne by the survey agency.
- 10) If the work is not completed within the stipulated time frame, unless the reasons are beyond control, a penalty of 0.5% of total fee will be levied on per day basis.
- 11) The cost of local conveyance (to and fro from survey locations), food and any other daily allowance of all the Supervisors and enumerators shall be borne by the survey agency.
- 12) Survey schedule and contact numbers of the deployed team should be communicated to the Client (Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi) at least 16 hours prior to commencement of the survey.
- 13) Survey agency team should follow the checklist given below at all the time of the traffic survey.
- 14) Agency should give a undertaking letter to Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi for ensure the safety and security of the enumerators and supervisors
- 15) Agency should follow the Minimum Wage Policy of Delhi

Apart from the above-mentioned terms and conditions, checklist provided as part of the work order should also be strictly followed

6. Penalty

If the work is not completed within the stipulated time frame, unless the reasons are beyond control, a penalty of 0.5% of total fee will be levied on per day basis where the Final penalty is limited to 10% of the Quote value.

6.1 Payment

The payment to the survey agency shall be made in Indian (INR) currency. Payment will be made upon raising the invoice as per following schedule:

1. 10% mobilization fee.
2. 30% amount after survey
3. 40% amount to be released after incorporating all the corrections
4. 20% amount on approval of Master Plan by Govt. of Ladakh

6.2 Additional scope of work

Any additional surveys (including duration and type of surveys) beyond the surveys mentioned in the scope of work will be paid on item rate which shall be paid as per the quotes provided in the above table.

6.3 Technical Experience format

Name of the Firm	Requirement	
Total Experience of the firm	Minimum 2 years	in Years
Total Supervisors	Minimum 10	
Maximum Manpower handled	Minimum 20/DAY	in a day
List of Similar Projects in urban areas - Package wise	Minimum 5 Projects	Attach separately
List of companies served	Minimum 5	Attach separately
Completion certificates	Minimum 5	Attach separately
Detail Presentation on Technical expertise		Attach separately
Work Plan	Day wise	Attach separately
Last Two Years GST Returns		Attach separately
Last Two Years Income Tax Returns		Attach separately

Agency should provide an undertaking letter to Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi stating that company is not black listed by any government and private organization.

6.4 Evaluation Criteria

Only technically qualified agencies shall be considered for evaluation and agency with least cost (L1) in each of the different packages shall be awarded the respective work packages.

7 Check List

For survey supervisors and enumerators

Checklist during traffic survey	
1	All survey supervisors and enumerators present at site should be wearing reflective jackets as safety precautions
2	Enumerators should be clearly briefed and tested about category of vehicle and its identification, that they are counting and interviewing (OD Survey)
3	Mock survey of minimum of 30 min. at start of the day is ensured at all locations
4	Survey locations are set up on either side of the road to cater to each direction of traffic.
5	Enumerators for change of shift on day one is at site at least an hour before their slot and briefed and tested for category of vehicles
6	Survey is being carried out with relievers (already considered in the manpower requirement) at all locations - to cover during breaks/shifts

7	Enumerators are taking break for food/rest only if relievers (already considered in the manpower requirement) are taking their place
8	Surveys are continuously and thoroughly supervised;
9	Proper precautions shall be taken care of like the anticipation of rain which should not hamper the survey progress
10	Frequent checks are done to ensure that enumerators are completely aware of the category of vehicle that are counting
11	The responses for OD survey should be recorded in English language preferably and the coded and punched data shall be sent in English language only.

