

फैक्स Fax : 0091-135-2744064
 0091-135-2743331
 दूरभाष Tele : 0135-2749719
 2747051-56 Extn.5026
 ईमेल Email : sgo.store.soi@gov.in
 Website : www.surveyofindia.gov.in



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भारतीय सर्वेक्षण विभाग
SURVEY OF INDIA
महासर्वेक्षक का कार्यालय
SURVEYOR GENERAL'S OFFICE
 पत्र पेटी सं 37, POST BOX No. 37
 देहरादून-248001 (उत्तराखण्ड), भारत
 DEHRADUN-248001 (Uttarakhand), INDIA

दिनांक Dated : 07-01-2026

Office Memorandum

Sub: Empanelment of Firms for providing various Geospatial Services- reg.

In accordance with the provisions of the General Financial Rules (GFR) 2017, read with the guidelines contained but not limited to, in the *Manual for Procurement of Goods clause 3.6, Manual for Procurement of Non-Consultancy services 2025* clauses 3.7 and 8.1.1 (7), issued by the Ministry of Finance, empanelment of service providers can be done to ensure availability of technically competent and experienced firms for specified categories of geospatial services.

2. In pursuance of the above provisions, Surveyor General Office, Survey of India had invited "**Request for Proposal for Empanelment of Firms for providing various Geospatial Services**" on CPP Portal based on pre-defined eligibility criteria and technical evaluation criteria with aim to establish a pre-qualified pool of technically competent firms that can be engaged by State Geospatial Directorates for project-based execution. The empanelment process is based only on eligibility and technical qualification criteria and does not involve any financial bidding at this stage. The empanelment has been carried out under the following **11 service categories**, each with a 3-year empanelment validity:

Category No.	Service Category	Scope of Work	Validity
1	Drone Services for ORI and DSM	Aerial flying with drones fitted with nadir camera sensors for ORI and DSM generation.	3 years
2	Drone Services for 3D City Model	Aerial flying with drones fitted with oblique (1 nadir + 4 oblique) cameras for 3D City Mesh & ORI.	3 years
3	Drone Services for ORI and Terrain Survey using LiDAR	Aerial flying with drones fitted with nadir cameras and LiDAR for ORI and DSM generation	3 years
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Manned aircraft / helicopters with nadir cameras and LiDAR for ORI and DSM generation.	3 years
5	Manned Aerial Services for	Manned aircraft/helicopters	3 years



	3D City Model and LiDAR Survey	with oblique (1 nadir + 4 oblique) cameras and LiDAR for 3D Mesh, ORI.	
6	2D Feature Extraction Services	Extraction of 2D vector data from ORI.	3 years
7	3D Feature Extraction and Vector Model Services	Extraction of 3D vector data and models from stereo or mesh datasets.	3 years
8	DSM to DTM Conversion Services	Classification of LiDAR / photogrammetric point clouds for DTM generation.	3 years
9	Geo-Positioning Services - Horizontal Control	GNSS-based establishment of horizontal control points.	3 years
10	Geo-Positioning Services - Vertical Control	High-precision levelling and establishment of vertical benchmarks.	3 years
11	Geo-referencing Services	Geo-referencing legacy records and raster datasets to WGS-84 using satellite imagery.	3 years

The detailed technical specifications, deliverables, and quality control requirements (QCR) for the above listed Geospatial Mapping and Survey Services is mentioned in Section VI: Schedule of Requirements of RFP as part of the empanelment process.

3. The Technical Bids received were examined and evaluated by the duly constituted Technical Evaluation Committee in accordance with the terms and conditions laid down in the RFP document.

4. Based on the recommendations of the Technical Evaluation Committee and with the approval of the competent authority, the firms found technically qualified have been empanelled for the said task. Qualified empanelled firms are also classified as Class A+, A, B, C based on their financial and technical capabilities. The class-wise minimum thresholds for critical equipment and key personnels are mentioned in Section-VII of the tender document of the empanelment. The firm wise and Service category wise list of empanelled firms is enclosed as **Annexure-I**.

5. In terms of Rule 164 of GFR, 2017, which provides for adoption of a two-stage bidding for procurement of goods/services, it is hereby directed that the GDs/Office shall invite Financial Bids only from the empanelled firms listed in **Annexure-I**.

6. The eligible empanelled firms of may be invited to participate in project-specific financial bidding based on their approved service categories in accordance with the following:

- (a) Provisions as per applicable Rule 155, 158, 161 of GFR 2017 of **and Manual for Procurement of Goods 2024 and Manual for Procurement of Non-Consultancy services 2025**
- (b) As per the terms and conditions stipulated in the original tender document of empanelment. The tender document of the empanelment is attached as **Annexure-II** for reference.
- (c) Considering the estimated project cost and technical requirements, the Request for Proposal will be issued to empanelled firms belonging to the appropriate class or



higher classes. Joint Venture and/or vertical subcontracting may be permitted with other empaneled firms for works involving multiple categories of services, limited to those specific service(s) for which the lead/eligible firm is not empaneled. Collectively, the JV partners shall meet the prescribed empanelment category and grade requirements for all services involved in the work.

(d) The Request for Financial Proposal (RFP) for specific projects to be issued as per the DoE template of Standard Bidding Document by each State Geospatial Directorate/Wing. Some of the salient points to be included in RFP are given below:

- Minimum Class of Empanelled Firms who can participate in the bid, Scope of Work aligned to one or more geospatial services, Project Area (sq. km), expected timeline for completion (months/years), milestones, Instructions to bidders, technical specifications, Details of critical instruments and manpower etc.
- General Conditions of Contract (GCC), which shall form an integral part of the bidding document and the contract to be executed.
- Special Conditions of Contract (SCC), as applicable to the specific nature, scope, and duration of the work, which shall supplement and/or modify the GCC.
- A clear stipulation that in case of any conflict between the GCC and SCC, the provisions of the SCC shall prevail to the extent of such conflict.
- Please refer the empanelment tender for finalization of GCC and SCC of Request for Financial Proposal (RFP) for specific projects including penalties and liquidity damage.
- Financial bid form comprising BOQ.

(e) Firms will be required to submit a resource mobilization and execution plan as part of their project-specific bid responses. The daily coverage capacity of UAVs, aircraft, and processing teams will determine the technical feasibility of the proposed execution plan.

(f) Firms will need to ensure they have the necessary equipment, personnel, and software capabilities to meet project-specific requirements.

(g) Accuracy benchmarks, data validation methods, and quality control processes if additionally required will be defined in the project RFPs issued to empaneled firms.

7. **Empanelment Review:**

- a) The empanelment shall be valid for a period of three (3) years
- b) The empanelment process under this RFE shall remain dynamic in nature.
- c) Survey of India will review the performance in every six-months with an aim for upgradation or degradation of empanelment class based on compliance and capacity. Empanelment review shall be carried out by Survey of India twice every year, in the month of July and January.
- d) These shall allow new eligible firms or existing firms upgrading their class or service categories to submit applications for employment.
- e) Firms may request class upgradation based on updated turnover and critical instruments and manpower.
- f) Degradation may occur during six-monthly reviews based on non-performance or capacity gaps.
- g) Such rolling applications shall be invited through periodic public notices in CPP Portal by contract management committee and will be subject to the same



qualification criteria, evaluation process, and documentation requirements as specified in this RFE.

- h) The empanelment of firms through these subsequent windows shall not alter or extend the validity of this RFE but shall supplement the list of technically qualified firms available for project-specific financial bidding during the empanelment period.
- i) Firms failing to maintain their empaneled technical capacity may be removed from the panel.
- j) Firms will be required to maintain declared technical capabilities throughout the empanelment period.
- k) Empanelled Review Mechanism is detailed at Section VII: Performance Standards and Quality Assurance

8. The empanelled firms shall be required to submit their Financial Bids with explicit and unconditional acceptance of the GCC and SCC, without any deviation, as a pre-condition for consideration of their bids.

9. This Office Order is issued with the approval of the competent authority.

Encl.:

Annexure-I – List of Empanelled Firms (Service Category Wise and Firm Wise)

Annexure-II – Tender document of Empanelment



07.01.2026

(Mohan Ram)

Deputy Surveyor General (Adm)

For, Surveyor General of India

email: mohanram.soi@gov.in

Ph.: 0135-2741243

To:

1. All Additional SGs/Directors/Wing Incharges
2. Members of the Contract Management Committee
3. Additional SGs/DSGs of SGO
4. E-office NB/SoI Web Admin

Copy To:

Sr. PS to SGI for kind information.

Service Category Wise Summary

Empaneled Class type: A+

SL NO	NAME OF FIRM (M/S)	Service Type	Empaneled Class											States/UTs Applied
			1	2	3	4	5	6	7	8	9	10	11	
1	Ramtech Software Solutions Pvt. Ltd	Drone Services for ORI and DSM	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	A+
2	RMSI Private Limited	Drone Services for 3D City Model	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	A+
3	IIC Technologies Private Limited	Drone Services for ORI and Terrain Survey using LiDAR	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	A+
4	Garuda UAV Soft Solutions Private Limited	Drone Services for ORI and 3D City Model	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	Applied in all states except Manipur, Dadra & Nagar Haveli, Daman & Diu, J&K, Ladakh and Lakshadweep
5	Genesys International Corporation Limited	Survey using LiDAR	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	A+

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Service Category Wise Summary

Empanelled Class type: A

SL No	NAME OF FIRM (M/S)	Service Category	Service Type	States/UTs Applied										Implementation Class	
				1	2	3	4	5	6	7	8	9	10	11	
1	Genesys International Corporation Limited		Drone Services for ORI and DSM	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs
2	Aarav Unmanned Systems Pvt Ltd		Drone Services for 3D City Model	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	All States/UTs
3	Geokno India Pvt Ltd		Drone Survey using LIDAR	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	All States/UTs
4	LTI Mindtree Limited		Drone Services for ORI and Terrain Survey using LIDAR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	All States/UTs
5	SATRA Services and Solutions Pvt. Ltd		Manneled Aerial Services for 3D City Model	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	All States/UTs. For Service Category 9:- All States/UTs except Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, West Bengal, J&K, Ladakh, Lakshadweep.
6	Pioneer Foundation Engineers Private Limited		Model Services	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	All States/UTs except Ladakh, Manipur, Nagaland, Lakshadweep, Andaman & Nicobar Islands

Service Category Wise Summary

Empaneled Class type: B

SL NO	NAME OF FIRM (M/S)	Service Type	Service Category										States/UTs Applied	
			1	2	3	4	5	6	7	8	9	10	11	
1	IIC Technologies Private Limited	Drone Services for ORI and DSM	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs
2	Garuda UAV Soft Solutions Private Limited	Drone Services for 3D City Model	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	Applied in all states except Manipur, Dadra & Nagar Haveli, Daman & Diu, J&K, Ladakh and Lakshadweep
3	Pioneer Foundation Engineers Private Limited	Drone Survey using LiDAR	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs except Ladakh, Manipur, Nagaland, Lakshadweep, Andaman & Nicobar Islands
4	Nektor Engineers & Project Consultants	Drone Services for ORI and Terrain Survey using LiDAR	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs
5	CyberSWIFT Infotech Pvt. Ltd	Drone Services for ORI and DTM	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs.
6	GeoVista Technologies Private Limited	Drone Services for 3D City Model	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs.
7	Rudrabhishik Enterprises Limited	Drone Services for ORI and DSM	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs

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Sl No	Company Name	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6	Category 7	Category 8	Category 9	Category 10	Category 11	Category 12	Category 13
8	C.E. Info Systems Limited	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs
9	DR. Design Pvt. Ltd	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	All States/UTs
10	Excel Geomatics Pvt Ltd	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	All States/UTs
11	Matrix Geo Solutions Limited	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	All States/UTs
12	Neogeoinfo Technologies Limited	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	All States/UTs
13	North East Centre for Technology Application and Reach (NECTAR)	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	For Service Category 9:- All States/UTs except Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu, Telangana, Uttarakhand, West Bengal, Andaman & Nicobar, J&K, Ladakh, Lakshadweep, Puducherry.

Service Category Wise Summary

Empanelled Class type: C

SL No	NAME OF FIRM (M/S)	Service Type	Service Category										Empanellement Class	States/UTs Applied
			1	2	3	4	5	6	7	8	9	10		
1	Garuda UAV Soft Solutions Private Limited	Drone Services for ORI and DSM	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	C	Applied in all states except Manipur, Dadra & Nagar Haveli, Daman & Diu, J&K, Ladakh and Lakshadweep
2	Genesys International Corporation Limited	Drone Services for 3D City Model	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	All States/UTs
3	Pioneer Foundation Engineers Private Limited	Drone Survey Using LiDAR	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	All States/UTs except Ladakh, Manipur, Nagaland, Lakshadweep, Andaman & Nicobar Islands
4	C.E. Info Systems Limited	Manneled Aerial Services for ORI and DTM Survey Using LiDAR	✗	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	All States/UTs
5	DR. Design Pvt. Ltd	Manneled Aerial Services for ORI and DSM	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	C	All States/UTs.

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25	Saptrishi Consultancy Services Ltd	✓ X X X ✓ X X X X ✓ X X X ✓ X X X ✓ C	All States/UTs
26	SBL Knowledge Services Private Limited	✗ X X X X X X X X ✓ X X X X X X C	All States/UTs
27	SG & Associates	✓ X X X X X X X X ✓ X X X X ✓ C	All States/UTs
28	Shubh Consultants & Technocrats LLP	✓ X X X X X X X X ✓ X X X X X X C	All States/UTs 1:-All States/UTs except Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttarakhand, West Bengal, Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli and Daman & Diu, J&K, Ladakh, Lakshadweep.
29	VS Safety Enterprise (OPC) Pvt Ltd	✗ X X X X X X X X ✓ X X X X X X C	All States/UTs

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Empanelled Firm Wise Summary

Empaneled Class type: A+

SL NO	NAME OF FIRM	Service Category	Service Type	States/UTs Applied	
				Implementation Class	States/UTs
1	Ramtech Software Solutions Pvt. Ltd	6	2D Feature Extraction Services	A+	All States/UTs
		11	Geo-referencing Services	A+	All States/UTs
	RMSI Private Limited	6	2D Feature Extraction Services	A+	All States/UTs
		7	3D Feature Extraction and Vector Model Services	A+	All States/UTs
	IIC Technologies Private Limited	8	DSM to DTM Conversion Services	A+	All States/UTs
		11	Geo-referencing Services	A+	All States/UTs
		6	2D Feature Extraction Services	A+	All States/UTs
		7	3D Feature Extraction and Vector Model Services	A+	All States/UTs
		8	DSM to DTM Conversion Services	A+	All States/UTs
		9	Geo-Positioning Services - Horizontal Control	A+	All States/UTs
		10	Geo-Positioning Services - Vertical Control	A+	All States/UTs
		11	Geo-referencing Services	A+	All States/UTs
		6	2D Feature Extraction Services	A+	All States/UTs
		9	Geo Positioning Services - Horizontal Control	A+	All States/UTs
4	GarudaUAV Soft Solutions Private Limited	9	Geo Positioning Services - Vertical Control	A+	All States/UTs
		11	Geo Referencing Services	A+	All States/UTs
	Genesys International Corporation Limited	4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	A+	All States/UTs
		5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	A+	All States/UTs
		6	2D Feature Extraction Services	A+	All States/UTs
		7	3D Feature Extraction and Vector Model Services	A+	All States/UTs
		9	Geo Positioning Services - Horizontal Control	A+	All States/UTs
		10	Georeferencing Services	A+	All States/UTs

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Empanelled Firm Wise Summary

Empanelled Class type: A

	Service Category	Service Type	Empanellement Class	States/UTs Applied
1	Genesys International Corporation Limited	8 DSM to DTIM Conversion Services	A	All States/UTs
2	Aarav Unmanned Systems Pvt Ltd	1 Drone Services for ORI and DSM 6 2DFeatureExtractions Services	A A	All States/UTs
3	Geokno India Pvt Ltd	4 Manned Aerial Services for ORI and Terrain Survey using LiDAR 6 2DFeatureExtraction Services 8 DSM to DTIM Conversion Services 11 Geo referencing Services	A A A	All States/UTs
4	LTI Mindtree Limited	1 Drone Services for ORI and DSM 2 DroneServicesfor3D City Model 3 Drone Services for ORI and Terrain Survey using LiDAR 4 Manned Aerial Services for ORI and Terrain Survey using LiDAR 5 Manned Aerial Services for 3D City Model and LiDAR Survey 6 2D Feature Extraction Services 7 3D Feature Extraction and Vector Model Services 8 DSM to DTIM Conversion Services 9 Geo-Positioning Services -Horizontal Control 11 Geo-referencing Services 6 2DFeatureExtraction Services	A A A A A A A A A A	All States/UTs
5	SATRA Services and Solutions Pvt.Ltd	9 Geo-Positioning Services- Horizontal Control 11 Georeferencing Services	A	All States/UTs except Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, West Bengal, J&K, Ladakh, Lakshadweep.
6	Pioneer Foundation Engineers Private Limited	9 Geo-Positioning Services- Horizontal Control	A	All States/UTs except Ladakh, Manipur, Nagaland, Lakshadweep, Andaman & Nicobar Islands

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Empanelled Firm Wise Summary

Empanelled Class type: B

		Service Category	Service Type	States/UTs Applied	
				Empanellement Class	States/UTs Applied
1	IIC Technologies Private Limited	4	Manned Aerial Services for ORI & Terrain Survey using LiDAR	B	All States/UTs
		5	Manned Aerial Services for 3D City Model and LiDAR Survey	B	
		1	Drone Services for ORI and DSM	B	Applied in all states except Manipur, Dadra & Nagar Haveli, Daman & Diu, J&K, Ladakh and Lakshadweep
		2	Drone Services for 3D City Model	B	
2	GarudaUAV Soft Solutions Private Limited	2	Manned Aerial Services for ORI and Terrain	B	
		4	Survey using LiDAR	B	
		1	Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)	B	
		6	2D Feature Extraction Services	B	
3	Pioneer Foundation Engineers Private Limited	7	3D Feature Extraction and Vector Model Services	B	
		8	DSM to DTM Conversion Services	B	
		10	Geo-Positioning Services- Vertical Control	B	
		11	Geo-referencing Services	B	
4	Nektor Engineers & Project Consultants	6	2D Feature Extraction Services	B	
		7	3D Feature Extraction and Vector Model Services	B	
		8	DSM to DTM Conversion Services	B	
		9	Geo-Positioning Services -Horizontal Control	B	
5	CyberSWIFT Infotech Pvt. Ltd	11	Georeferencing Services	B	
		9	Geo Positioning Services-Horizontal Control	B	All States/UTs
		9	Geo Positioning Services -Horizontal Control	B	All States/UTs
		6	2D Feature Extraction Services	B	All States/UTs
6	GeoVista Technologies Pvt Ltd	1	Drone Services for ORI and DSM	B	All States/UTs
		1	Drone Services for ORI and DSM	B	
		6	2D Feature Extraction Services	B	
		8	DSM to DTM Conversion Services	B	
7	Rudrabhishek Enterprises Limited	11	Georeferencing Services	B	
		6	2D Feature Extraction Services	B	
		1	Drone Services for ORI and DSM	B	
		8	DSM to DTM Conversion Services	B	
8	C.E. Info Systems Limited	1	Drone Services for ORI and DSM	B	
		6	2D Feature Extraction Services	B	
		8	DSM to DTM Conversion Services	B	
		11	Georeferencing Services	B	
9	DR.Design Pvt. Ltd	1	Drone Services for ORI and DSM	B	
		6	2D Feature Extraction Services	B	
		8	DSM to DTM Conversion Services	B	
		11	Georeferencing Services	B	

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10	Excel Geomatics Pvt Ltd	6	2D Feature Extraction Services	B
		7	3D Feature Extraction Services and Vector Model Services	B
		9	Geo Positioning Services -Horizontal Control	B
		11	Georeferencing Services	B
11	Matrix Geo Solutions Limited	6	2D Feature Extraction Services	B
		7	3D Feature Extraction and Vector Model Services	B
		8	DSM to DTM Conversion Services	B
		9	Geo Positioning Services- Horizontal Control	B
		10	Geo Positioning Services	B
		11	Geo referencing Services	B
12	Neogeoinfo Technologies Limited	9	Geo-Positioning Services-Horizontal Control	All States/UTs except Manipur, Meghalaya, Mizoram, Nagaland, Dadra & Nagar Haveli & Daman Diu, J&K, Ladakh, Lakshadweep & Puducherry.
		1	Drone Services for ORI and DSM	B
13	North East Centre for Technology Application and Reach (NECTAR)	6	2D Feature Extraction Services	All States/UTs except Goa, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Telangana, Uttarakhand, West Bengal, Andaman & Nicobar, J&K, Ladakh, Lakshadweep, Puducherry
		7	3D Feature Extraction and Vector Model Services	B
		8	DSM to DTM conversion services	All States/UTs
		9	Geo-Positioning Services-Horizontal Control	B
		11	Geo-referencing Services	B

26/09/2021

Empanelled Firm Wise Summary

Empaneled Class type: C

S N IS	NAME OF FIRM	Service Category	Service Type	States/UTs Applied	
				Class	Empanellement
1	GarudaUAV Soft Solutions Private Limited	3	Drone Services for ORI and Terrain Survey using LiDAR	C	Applied in all states except Manipur, Dadra & Nagar Haveli, Daman & Diu, J&K, Ladakh and Lakshadweep
2	Genesys International Corporation Limited	1	Drone Services for ORI and DSM	C	
		2	DroneServicesfor3D City Model	C	All States/UTs
3	Pioneer Foundation Engineers Private Limited	3	Drone Services for ORI and DSM	C	
		2	DroneServicesforOrtho Rectified Imagery (ORI) and Terrain Survey using LiDAR	C	All States/UTs except Ladakh, Manipur, Nagaland, Lakshadweep, Andaman & Nicobar Islands
4	C.E. Info Systems Limited	2	DroneServicesfor3DCityModel	C	
		6	2DFeatureExtractions Services	C	
		7	3DFeatureExtraction and Vector Model Services	C	All States/UTs
5	DR. Design Pvt. Ltd	8	DSM to DTM Conversion Services	C	
		11	Georeferencing Services	C	
6	Excel Geomatics Pvt Ltd	9	Geo Positioning Services- Horizontal Control	C	All States/UTs
		1	Drone Services for ORI and DSM	C	Bihar, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, West Bengal, Chhattisgarh, J&K, Delhi
7	Matrix Geo Solutions Limited	1	Drone Services for ORI and DSM	C	Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat
		2	DroneServicesfor3D City Model	C	
		3	Drone Services for ORI and Terrain Survey using LiDAR	C	
8	Neogeoinfo Technologies Limited	1	Drone Services for ORI and DSM	C	All States/UTs except Manipur, Meghalaya, Mizoram, Nagaland,
		6	2DFeatureExtraction Services	C	



		7	3DFeatureExtraction and Vector Model Services	C	Dadra & Nagar Haveli & Daman Diu, J&K, Ladakh, Lakshadweep & Puducherry.
		11	Geo-referencing Services	C	All States/UTs except Goa, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu, Telangana, Uttarakhand, West Bengal, Andaman & Nicobar, J&K, Ladakh, Lakshadweep, Puducherry
9	Application and Reach (NECTAR)	3	Drone Services for ORI and Terrain Survey using LiDAR	C	All States/UTs
10	Advent Oilfield Services Private Limited	6	2DFeatureExtractions Services	C	All States/UTs
		11	Georeferencing Services	C	All States/UTs
		1	Drone Services for ORI and DSM	C	All States/UTs
		2	DroneServicesfor3DCity Model	C	All States/UTs
		3	Drone Services for ORI and Terrain Survey using LiDAR	C	All States/UTs
		6	2DFeatureExtraction Services	C	All States/UTs
11	Almondz Global Infra-Consultant Limited	8	DSM to DTM Conversion Services	C	All States/UTs
		9	Geo Positioning Services-Horizontal Control	C	All States/UTs
		11	Georeferencing Services	C	All States/UTs
		1	Drone Services for ORI and DSM	C	All States/UTs
		2	Drone Services for 3DCityModel	C	All States/UTs
		3	Drone Services for ORI and Terrain Survey using LiDAR	C	All States/UTs
12	Amnix Infotechnologies Private Limited	6	2DFeatureExtraction	C	All States Except Manipur Meghalaya Mizoram Nagaland
		7	3DFeatureExtraction and Vector Model Services	C	All States Except Manipur Meghalaya Mizoram Nagaland
		8	Drone Services for ORI and DSM	C	All States Except Manipur Meghalaya Mizoram Nagaland
		9	Geo Positioning Services -Horizontal Control	C	All States Except Manipur Meghalaya Mizoram Nagaland
		11	Geo referencing Services	C	All States/ UTs except Bihar, Himachal Pradesh, Punjab& West Bengal
		1	Drone Services for ORI and DSM	C	All States/ UTs except Bihar, Himachal Pradesh, Punjab& West Bengal
13	Dale Technologies Private Limited	6	2DFeatureExtraction Services	C	All States/UTs
		8	DSM to DTM Conversion Services	C	All States/UTs
		9	Geo Positioning Services -Horizontal Control	C	All States/UTs
		11	Geo referencing Services	C	All States/UTs
14	DroneLab Technologies Private Limited	1	Drone Services for ORI and DSM	C	All States/UTs
15	EDALL Systems	1	Drone Services for ORI and DSM	C	All States/UTs

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		6	2D Feature Extraction Services	C	All States/UTs except Mizoram
		9	Geo Positioning Services- Horizontal Control	C	All States/UTs
		11	Geo referencing Services	C	All States/UTs
		1	Drone Services for ORI and DSM	C	
		6	2D Feature Extraction Services	C	
		7	3D Feature Extraction and Vector Model Services	C	Andhra Pradesh, Telangana, Karnataka, Kerala, Tamilnadu, Maharashtra, Andaman & Nicobar Island, Puducherry
16	Gridline Surveys and Geospatial Private Limited	8	DSM to DTM Conversion Services	C	
		9	Geo Positioning Services- Horizontal Control	C	
		10	Geo Positioning Services- Vertical Control	C	
		11	Geo referencing Services	C	
		1	Drone Services for ORI and DSM	C	All States/UTs except Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland
		6	2D Feature Extraction Services	C	
		7	3D Feature Extraction and Vector Model Services	C	
		8	DSM to DTM Conversion Services	C	
		9	Geo Positioning Services- Horizontal Control	C	All States /UTs except Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland
		11	Georeferencing Services	C	All States/UTs
		1	Drone Services for ORI and DSM	C	
		6	2D Feature Extraction Services	C	
		9	Geo-Positioning Services -Horizontal Control	C	
		1	Drone Services for ORI and DSM	C	
		6	2D Feature Extraction Services	C	
		8	DSM to DTM Conversion Services	C	
		9	Geo Positioning Services- Horizontal Control	C	
		10	Geo Positioning Services -Vertical Control	C	
		11	Geo referencing Services	C	
		1	Drone Services for ORI and DSM	C	
		6	2D Feature Extraction Services	C	
		9	Geo-Positioning Services -Horizontal Control	C	
		11	Geo referencing Services	C	
		1	Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)	C	
20	Marvel Geospatial Solutions Pvt Ltd				
21	Naksha Tech Private Limited				

			All States/UTs except Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, Jammu & Kashmir
3	Drone Services for Ortho Rectified Imagery(ORI) and Terrain Survey using LiDAR	C	
6	2D Feature Extraction Services	C	All States/UTs
7	3D Feature Extraction and Vector Model Services	C	
8	DSM to DTM Conversion Services	C	
9	Geo Positioning Services -Horizontal Control	C	All States/UTs except Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Jammu & Kashmir
	11 Geo-referencing Services	C	All States/UTs
22	2DFeatureExtraction Services	C	All States/UTs
23	Geo referencing Services	C	
	9 Geo Positioning Services- Horizontal Control	C	Andhra Pradesh, Karnataka, Kerala Tamil Nadu, Puducherry, Goa, Telangana
	10 Geo Positioning Services- Vertical Control	C	
	11 Geo-referencing Services	C	
22	Pan India Consultants Pvt Ltd		
23	Prime Meridian Surveys Pvt Ltd		
24	Pureways Infra Private Limited (Formerly known as Growever Infra Private Limited)		
25	Saptoshi Consultancy Services Ltd		
26	SBL Knowledge Services Private		

✓ bnew

Limited	7	3D Feature Extraction and Vector Model Services	C
	8	DSM to DTM Conversion Services	C
	1	Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)	C
	6	2D Feature Extraction Services	C
27	SG & Associates	8 DSM to DTM Conversion Services	C All States/UTs
	9	Geo-Positioning Services- Horizontal Control	C
	10	Geo-Positioning Services- Vertical Control	C
	11	Geo-referencing Services	C
			All States/UTs except Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttarakhand, West Bengal, Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli and Daman & Diu, J&K, Ladakh, Lakshadweep
	1	Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)	C
28	Shubh Consultants & Technocrats LLP	8 DSM to DTM Conversion Services	C All States/UTs
	9	Geo-Positioning Services- Horizontal Control	C All States/UTs except Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttarakhand, West Bengal, Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli & Daman & Diu, J&K, Ladakh, Lakshadweep
29	VS Safety Enterprise (OPC) Pvt. Ltd	9 Geo-Positioning Services- Horizontal Control	C All States/UTs

Biju



Survey of India
Department of Science and Technology

Tender Reference Number: S-1192/752025/8/2025 Dated 07-07-2025

Request for Proposal for Empanelment of Firms for providing various

Geospatial Services

Procuring Entity:
OFFICE OF SURVEYOR GENERAL OF INDIA,
SURVEY OF INDIA, HATHIBARKALA ESTATE
DEHRADUN (UTTARAKHAND) – 248001
Email - sgo[dot]store[dot]soi[at]gov[dot]in

Survey of India

Request for Proposal for Empanelment of Firms for providing various

Geospatial Services

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Section I: Notice Inviting Empanelment (NIE)

1.1 Introduction

The Survey of India (SoI), under the Department of Science and Technology, Government of India, invites applications from eligible firms for empanelment in geospatial services for various mapping, surveying, and spatial data analysis projects.

This empanelment process aims to establish a pre-qualified pool of technically competent firms that can be engaged by State Geospatial Directorates for project-based execution. The empanelment process is based **only on eligibility and technical qualification criteria** and does **not involve any financial bidding** at this stage.

Once empanelled, firms will be eligible to participate in **project-specific financial proposal processes** initiated by the respective State Geospatial Directorates under the categories for which they are empanelled. This ensures a transparent and competitive system for financial bidding, based on prequalification.

The empanelment shall be valid for a period of **three (3) years**, subject to six-monthly performance reviews and provisions for upgradation or degradation of empanelment class based on compliance and capacity.

This RFE is open to both new firms and firms previously empanelled with Survey of India. All applicants shall be treated equally, and no automatic qualification or preferential treatment shall be granted.

- Already empanelled firms must submit a fresh application to confirm their participation in this RFE.
- All applicants—including previously empanelled firms—will undergo technical evaluation based on the eligibility criteria specified in this RFE.
- Firms currently executing SoI projects may be considered for **Class C empanelment with relaxation in project volume criteria only**, subject to:
 - Submission of valid work order and satisfactory performance report , and
 - Fulfilment of all other qualification criteria including turnover, manpower, equipment, and certifications.

Through this empanelment, Survey of India seeks to establish a robust, scalable, and performance-oriented framework for geospatial data acquisition, processing, and analytics for government projects across India.

1.2 Key Objectives of Empanelment

1. To establish a panel of technically competent firms capable of delivering high-quality geospatial services across multiple domains.
2. To eliminate repetitive technical evaluations and streamline procurement by enabling project-specific financial bidding among prequalified firms.
3. To ensure availability of specialized expertise across the following domains:
 - High-Resolution Aerial Surveys (Drone & Manned Aircraft)
 - 2D/3D Feature Extraction & GIS Dataset Generation

- LiDAR-Based Terrain Mapping & 3D City Modeling
- GNSS-Based Control Point Establishment & Geo-referencing
- DSM to DTM Conversion & Terrain Classification
- Georeferencing of Legacy Records

4. To enforce a structured and transparent bidding system through a performance-based empanelment approach.
5. To implement six-monthly performance reviews and enable class-based reclassification.
6. To encourage firms to demonstrate scalable project execution capacity through resource planning and mobilization.
7. To promote adoption of advanced geospatial technologies and AI-based feature extraction through an open, competitive system.

1.3 Scope of Empanelment

The Survey of India seeks to empanel firms under the following **11 service categories**, each with a 3-year empanelment validity:

Category No.	Service Category	Scope of Work	Validity
1	Drone Services for ORI and DSM	Aerial flying with drones fitted with nadir camera sensors for ORI and DSM generation.	3 years
2	Drone Services for 3D City Model	Aerial flying with drones fitted with oblique (1 nadir + 4 oblique) cameras for 3D City Mesh & ORI.	3 years
3	Drone Services for ORI and Terrain Survey using LiDAR	Aerial flying with drones fitted with nadir cameras and LiDAR for ORI and DSM generation	3 years
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Manned aircraft/helicopters with nadir cameras and LiDAR for ORI and DSM generation.	3 years
5	Manned Aerial Services for 3D City Model and LiDAR Survey	Manned aircraft/helicopters with oblique (1 nadir + 4 oblique) cameras and LiDAR for 3D Mesh, ORI.	3 years
6	2D Feature Extraction Services	Extraction of 2D vector data from ORI.	3 years
7	3D Feature Extraction and Vector Model Services	Extraction of 3D vector data and models from stereo or mesh datasets.	3 years
8	DSM to DTM Conversion Services	Classification of LiDAR/photogrammetric point clouds for DTM generation.	3 years
9	Geo-Positioning Services - Horizontal Control	GNSS-based establishment of horizontal control points.	3 years

Category No.	Service Category	Scope of Work	Validity
10	Geo-Positioning Services - Vertical Control	High-precision leveling and establishment of vertical benchmarks.	3 years
11	Georeferencing Services	Georeferencing legacy records and raster datasets to WGS-84 using satellite imagery.	3 years

Key Notes:

- No financial proposals are required at this stage.
- Empanelled firms will only be eligible for **project-specific RFPs** floated by State Geospatial Directorates in the future.

1.4 Empanelment & Financial Bidding Process

1.4.1 Empanelment Process

This RFE introduces a **class-based structure** to ensure level playing field for firms with varying financial and technical capacity:

Class	Turnover Range (INR Cr)
C	2.5 – 5
B	>5 – 10
A	>10 – 50
A+	>50

Empanelment is open to all classes. Firms must submit technical documents aligned to the class and categories they are applying for.

All firms, including those already empanelled, must undergo fresh technical evaluation — no automatic qualification.

1.4.2 Empanelment Review:

- Firms may request **class upgradation** based on updated turnover.
- **Degradation** may occur during six-monthly review based on non-performance or capacity gaps.
- The empanelment process under this RFE shall remain **dynamic in nature**. In addition to the current round of empanelment, the SoI reserves the right to issue **rolling empanelment notices** at its discretion. These shall allow **new eligible firms** or **existing firms** upgrading their class or service categories to submit applications for empanelment.

Such rolling applications shall be invited through periodic public notices and will be subject to the same qualification criteria, evaluation process, and documentation requirements as specified in this RFE. The empanelment of firms through these subsequent windows shall not alter or extend the validity of this RFE but shall supplement the list of technically qualified firms available for project-specific financial bidding during the empanelment period.

1.4.3 Project-Based Financial Bidding

Once empaneled, firms **may be invited** to participate in **project-specific financial bidding** based on their **approved service categories**. However, **this RFE is solely for technical empanelment**, and financial proposals are **not** being sought at this stage.

Key Clarifications on Future Financial Bidding (For Reference Only):

- **Financial proposals will be invited only from empaneled firms** under their respective service categories when projects are initiated.
- Each **State Geospatial Directorate** will issue a **Request for Financial Proposal (RFP)** for specific projects, detailing:

Project Area (sq. km)

- **Expected Timeline (months/years)**
- **Daily Coverage Requirements (UAV/Aircraft-based capacity)**
- **Technical Complexity (LiDAR, Stereo Imagery, GNSS Control, etc.)**

- **Empanelment does not guarantee financial work allocation.** The selection of firms for project execution will depend on their **technical qualification, project-specific resource availability, and competitive financial proposals** (to be submitted when invited).
- **Scalability and Resource Mobilization:**
 - Empaneled firms must **demonstrate their ability to scale resources and personnel** for future projects as required.
 - Firms will be required to submit a **resource mobilization plan** as part of their project-specific bid responses.
- **Performance-Based Participation in Future Projects:**
 - Firms with a **strong track record of compliance and timely execution** may be given **preference in future project bidding**.
 - Firms failing to **maintain their empaneled technical capacity** may be **removed from the panel**.
- **No Work Distribution Considerations at This Stage:**
 - Since **this is a technical empanelment process, no financial or work allocation considerations apply** at this stage.
 - Work splitting, L1 financial bidding, or resource constraints will be addressed in **project-specific RFPs** at a later stage.

Work Allocation Considerations:

While **work allocation is not part of this technical empanelment process**, the following considerations will be relevant when project-specific financial bidding is conducted in the future:

✓ **Project Timeline:** The execution timeline will be a **key parameter in assessing resource planning and deployment feasibility** for each project.

✓ **Technical Feasibility & Coverage Capacity:**

- The **daily coverage capacity** of UAVs, aircraft, and processing teams will determine the **technical feasibility of the proposed execution plan**.
- Firms will need to ensure they have the **necessary equipment, personnel, and software capabilities** to meet project-specific requirements.

✓ **Scalability & Resource Readiness:**

- Empaneled firms may be required to **demonstrate their ability to scale resources** for large projects.
- Firms will be required to **maintain declared technical capabilities** throughout the empanelment period.

✓ **Compliance with Service Category Standards:**

- Future project work will require compliance with **technical specifications outlined in the relevant service category**.
- Accuracy benchmarks, data validation methods, and quality control processes will be **defined in the project RFPs issued to empaneled firms**.

2. The Tender Document

2.1 Bidders must read the complete 'Tender Document'.

This NIE is an integral part of the Tender Document and serves a limited purpose of invitation, and does not purport to contain all relevant details for submission of bids. 'Tender Information Summary' (TIS) appended to this notice gives a salient summary of the tender information. Any generic reference to NIE shall also imply a reference to TIS as well. However, Bidders must go through the complete Tender Document for details before submission of their Bids.

2.2 Availability of the Tender Document

The Tender Document shall be published on the Portal: <https://eprocure.gov.in/eprocure>. It shall be available for download after the date and time of the start of availability till the deadline for availability as mentioned in TIS. The downloaded Tender Document is free of cost. If the Procuring Entity happens to be closed on the deadline for submitting the bids as specified above, this deadline shall *not* be extended. Any query/ clarification regarding downloading Tender Documents and uploading Bids on the e-Procurement portal may be addressed to the Help Desk (contact details given in TIS).

2.3 Clarifications

A Bidder requiring any clarification regarding the Tender Document may ask questions in writing/ electronically from Office/ Contact Person as mentioned in TIS, provided the questions are raised before the clarification end date mentioned in TIS. This deadline shall not be extended in case of any intervening holidays.

3. Eligibility Criteria for Participation in this Tender

Subject to provisions in the Tender Document, participation in this Tender Process is open to all bidders who fulfill the 'Eligibility' and 'Qualification criteria'. Bidder should meet the following eligibility criteria as on the date of his bid submission and should continue to meet these till the award of the contract. Bidder shall be required to declare fulfillment of Eligibility Criteria in Form 1.2 (Eligibility Declarations). Bidder unless otherwise stipulated in TIS/ AITB:

- 1) must be:

- (a) a natural person, private entity
- (b) Unless permitted explicitly in TIS/ AITB, not be(or proposes to be, a Joint Venture/ Consortium(an association of several persons, firms, or companies - hereinafter referred to as JV/C through a legally binding agreement).
- (c) a provider of the Non-consultancy Services offered with valid registration regarding GSTIN, PAN, EPF, ESI, Labour, Private Security Agencies, as applicable to the subject Services.

2) must:

- (a) Not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of aforesaid reasons.
- (b) (Including their affiliates or subsidiaries or Contractors/ subcontractors for any part of the contract):
 - i) Not stand declared ineligible/ blacklisted/ banned/ debarred by the Survey of India or its Ministry/ Department from participation in its Tender Processes; and/ or
 - ii) Not be convicted (within three years preceding the last date of bid submission) or stand declared ineligible/ suspended/ blacklisted/ banned/ debarred by appropriate agencies of Government of India from participation in Tender Processes of all of its entities, for:
 - offences involving moral turpitude in business dealings under the Prevention of Corruption Act, 1988 or any other law; and/or
 - offences under the Indian Penal Code or any other law for causing any loss of life/ limbs/ property or endangering Public Health during the execution of a public procurement contract and/ or
 - Suspected to be or of doubtful loyalty to the Country or a National Security risk as determined by appropriate agencies of the Government of India.
 - iii) Not have changed its name or created a new “Allied Firm”, consequent to having declared ineligible/ suspended/ blacklisted/ banned/ debarred as above.
 - iv) Not have an association (as a bidder/ partner/ director/ employee in any capacity)
 - of any retired Manager (of Gazetted Rank) or any retired Gazetted Officer of the Central or State Government or its Public Sector Undertakings if such a retired person has not completed the cooling-off period of one year after his retirement. However, this shall not apply if such managers/ officers have obtained a waiver of the cooling-off period from their erstwhile organisation.
 - of the near relations of executives of Procuring Entity involved in this Tender Process
- (c) Not have conflict of interest, which substantially affects fair competition. The prices quoted should be competitive and without adopting any unfair/ unethical/ anti-competitive means. No attempt should be made to induce any other bidder to submit or not to submit an offer for restricting competition

3) must fulfill any other additional eligibility condition, if any, as may be prescribed, in Tender Document.

4) must provide such evidence of their continued eligibility to the Procuring Entity if so requested

- 5) of Class-II Local Suppliers and Non-Local Suppliers (as defined in Make-in-India policy) shall be eligible subject to certain conditions as detailed in the ITB-clause4.1.
- 6) from specified countries having land borders with India (but not in development partnership with India) shall be eligible subject to certain conditions as detailed in the ITB-clause3.3.

4. Purchase Preference Policies of the Government

As detailed in the Tender Document, the Procuring Entity reserves its right to grant preferences to eligible Bidders under various Government Policies/ directives (policies relating to Make in India; MSME; Start-ups etc.).

5. Pre-bid Conference:

If so indicated in TIS, Bidders are requested to attend a Pre-bid conference for clarification on the Tenders' technical specifications and commercial conditions, on the time, date, and place mentioned therein. Participation in such a Pre-bid Conference is not mandatory. If a bidder does not participate or submit any query, then no subsequent representations from them regarding the Technical/commercial specifications/ conditions shall be entertained.

6. Submission of Bids:

- 1)** Bids must be uploaded till the deadline for submission mentioned in TIS. If the office happens to be closed on the deadline to submit the bids as specified above, this deadline shall not be extended.
- 2)** Since documents are digitally signed at the time of submission on the e-Procurement Portal, physical submission of documents (except EMD, wherever applicable) is not required. The Procuring Entity may request physical verification of specific documents only from the successful bidder(s) if necessary at mentioned venue. Failure to do so is likely to result in the bid being rejected. If the office is closed on the deadline for physical submission of originals, it shall stand extended to the next working day at the same time and venue.
- 3)** No manual Bids shall be made available or accepted for submission (except for originals of scanned copies as per sub-clause above). Bidder must comply with the conditions of the e-Procurement portal, including registration, compatible Digital Signature Certificate (DSC) etc. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling in the required information.
- 4)** As per current Government orders, in lieu of bid security, bidders must furnish Bid Securing Declaration (BSD) as 'Form 7: Documents Relating to Bid Security' in their bid as per format given therein. The BSD shall be drawn in favour of the authority stipulated in TIS. A self-attested scan of the original Form 7 should be uploaded along with bids. Bids not complying with these provisions shall be rejected.
- 5)** **Integrity Pact:** If so indicated, in the TIS/ AITB, all Bidders shall have to sign the Integrity Pact with the Procuring Entity as per 'Form 8: Integrity Pact'. Bids without a signed Integrity Pact shall be rejected.

7. Bid Opening

Bids received shall be opened online at the specified date and time given in TIS. If the office is closed on the specified date of opening of the bids, the opening shall be done on the next working day at the same time.

8. Disclaimers and Rights of Procuring Entity

The issue of the Tender Document does not imply that the Procuring Entity is bound to select bid(s), and it reserves the right without assigning any reason to:

- a) reject any or all of the Bids, or

- b) cancel the tender process; or
- c) abandon the procurement of the Services; or
- d) issue another tender for identical or similar Services

Note: For further details, please refer to appended TIS and the complete Tender Document.

Digitally Signed by
Tender Inviting Authority (TIA):
Additional Surveyor General
for Surveyor General of India
Dehradun, Uttarakhand

Appendix: Tender Information Summary (TIS)

Appendix to NIE: Tender Information Summary

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

(Ref ITB-clause 1.4)

TENDER INFORMATION SUMMARY (TIS) (TECHNICAL QUALIFICATION ONLY)

1. BASIC TENDER DETAILS

Parameter	Details / Remarks
Tender Title	Request for Empanelment of Firms for Providing Geospatial Services (Technical Qualification Only)
Service Categories	<ul style="list-style-type: none">✓ Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)✓ Drone Services for 3D City Model (using Oblique Imagery and Mesh Models)✓ Drone Services for ORI and Terrain Survey using LiDAR✓ Manned Aerial Services for ORI and Terrain Survey using LiDAR✓ Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR✓ 2D Feature Extraction Services✓ 3D Feature Extraction and Vector Model Services✓ DSM to DTM Conversion Services✓ Geo-Positioning Services - Horizontal Control✓ Geo-Positioning Services - Vertical Control✓ Georeferencing Services
Tender Type	Open Tender – Domestic ✓
Form of Contract	Empanelment Based on Technical Qualification Only ✓
Tender Category	Non-Consulting Services (Technical Qualification Only) ✓
No. of Covers	Single Cover (Technical Qualification Evaluation Only) ✓
Bidding System	Single Stage RFE ✓
Financial Bidding	Not Applicable – No Financial Bid is Sought in This RFE ✓

Procuring Organisation	Survey of India ✓
Procuring Entity	Survey of India ✓
Authority on Whose Behalf Tender is Invited	President of India ✓
Through	Surveyor General of India ✓
Tender Inviting Authority (TIA)	Surveyor General of India ✓
Address of TIA	Office of the Surveyor General of India, Hathibarkala Estate, Dehradun, PIN - 248001 ✓
Email for Queries	up.gdc.soi@gov.in✓
Important Note	<p>✓ This RFE is only for technical qualification-based empanelment.</p> <p>✓ No financial proposals will be evaluated under this RFE.</p> <p>✓ Financial bidding will be conducted separately for project-based work orders from empanelled firms.</p>

2. REQUIREMENT DETAILS (ITB 5.0)

Parameter	Details
Contract Period	<p>✓ Empanelment is valid for 3 years, subject to periodic performance reviews.</p> <p>✓ Firms must confirm participation annually to maintain empanelment status.</p>
Form of Contract (ITB 5.5)	Technical Qualification Only – No Financial Commitment at This Stage
Service Categories & Scope of Work	See detailed breakdown in the table below:

2.1 Service Categories & Scope of Work

Category No.	Service Category	Scope of Work	Empanelment Validity
1	Drone Services for Ortho Rectified Imagery (ORI)	Aerial flying with drones fitted with nadir camera sensors for ORI and DSM generation.	3 years

	and Digital Surface Model (DSM)		
2	Drone Services for 3D City Model	Aerial flying with drones fitted with oblique cameras (1 nadir & 4 oblique cameras) for 3D City Mesh Modeling, ORI, and DSM generation.	3 years
3	Drone Services for ORI and Terrain Survey using LiDAR	Aerial flying with drones fitted with nadir cameras and LiDAR sensors for ORI and DSM generation.	3 years
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Aerial flying with manned aircraft/helicopters fitted with nadir cameras and LiDAR sensors for ORI and DSM generation.	3 years
5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	Aerial flying with manned aircraft/helicopters fitted with oblique cameras (1 nadir & 4 oblique cameras) and LiDAR sensors for Photorealistic 3D City Mesh Model, ORI, and DSM generation.	3 years
6	2D Feature Extraction Services	Extraction of 2D vector data from ORI.	3 years
7	3D Feature Extraction and Vector Model Services	Extraction of 3D vector data and 3D vector models from stereo models and mesh models.	3 years
8	DSM to DTM Conversion Services	Cleaning/classification of photogrammetric/LiDAR point cloud data into various classes (ground, buildings, vegetation, water, etc.) using LiDAR data processing/terrain editing software and generating DTM.	3 years
9	Geo-Positioning Services - Horizontal Control	GNSS-based control points and geo-referencing.	3 years
10	Geo-Positioning Services - Vertical Control	High-precision leveling and vertical control surveys.	3 years
11	Georeferencing Services	Georeferencing of old legacy records from various sources (with different datum/no projection) to WGS-84 using satellite imagery.	3 years

3. CRITICAL DATES (ITB 7.0, 8.0, 9.0, 10.0 & 11.0)

Event	Date & Time
Published Date	07/07/2025, 1700 hrs
Document Download Start Date & Time	08/07/2025, 1000 hrs
Document Download End Date & Time	03/08/2025, 1800 hrs
Clarification Start Date & Time	08/07/2025, 1000 hrs
Clarification End Date & Time	16/07/2025, 1800 hrs

Event	Date & Time
Pre-Bid Meeting Date	18/07/2025, 1130 hrs
Clarification/ Amendments to Tender (If Any)	25/07/2025, 1700 hrs
Bid Submission Start Date & Time	30/07/2025, 1000 hrs
Bid Submission Closing Date & Time	04/08/2025, 1000 hrs
Tender Opening (Technical Qualification Only)	05/08/2025, 1100 hrs
Bid Validity (Days from Tender Opening Date)	180 Days

Note:No financial bid opening date is applicable under this RFE.

4. ELIGIBILITY TO PARTICIPATE (NIE 3 & ITB 3.2)

Parameter	Details
Nature of Eligible Bidders	Individual Service Providers, Firms, Joint Ventures, or Consortiums (Maximum of 2 Firms)
Make in India Policy (ITB 4.1.4)	✓ Minimum Local Content for Eligibility: 50% ✓ Eligible Local Suppliers: Only Class-I Local Suppliers

5. OBTAINING THE TENDER DOCUMENT & CLARIFICATIONS (ITB 7.0)

Parameter	Details
Tender Document Availability & Submission Portal	https://eprocure.gov.in/eprocure/app
Cost of Tender Document	Not Applicable
Contact for Clarifications	Office of Surveyor General of India, SGO, Hathibarkala Estate, Survey of India, Dehradun , Pin code-248001

6. OBTAINING THE TENDER DOCUMENT AND CLARIFICATIONS (ITB 7.0)

Parameter	Details
e-Procurement Portal for Document Availability & Submission	https://eprocure.gov.in/eprocure/app
Helpdesk Support	Available on the e-Procurement portal
Cost of Tender Document	Not Applicable
Office / Contact Person / Email for Clarifications	Office of Surveyor General of India, SGO, Hathibarkala Estate, Survey of India, Dehradun , Pin code-248001
Note	<p>✓ This RFE is for technical qualification-based empanelment only.</p> <p>✓ No financial bid is required under this RFE.</p>

7. PRE-BID CONFERENCE (ITB 8.0)

Event	Date & Time	Venue
Pre-Bid Meeting	18/07/2025, 1130 hrs	Conference Hall, Survey of India Surveyor General's office, Survey of India, Hathibarkala Estate, Dehradun
Deadline for Written Queries for Pre-Bid Conference	16/07/2025, 1800 hrs	On Eprocurement Portal only
Pre-Bid Conference Participation	<p>✓ Firms can seek clarifications on technical qualification criteria only.</p> <p>✓ No financial discussions will be entertained.</p>	
Clarification Amendments (If Any)	Responses and amendments (if required) will be published on thee-Procurement portal by 10/06/2025.	

8. PREPARATION, SUBMISSION, AND OPENING OF BIDS (ITB 9.0 & 10.0)

Parameter	Details

Parameter	Details
Bid Addressed To	President of India, Through Surveyor General of India, Survey of India
Instructions for Online Bid Submission	https://etenders.gov.in/eprocure/app?page=HelpForContractors&service=page
Tender Opening Place	On the eProcurement portal mentioned above
Alternate Bids Allowed? (ITB 9.1.6)	✗ NO (Only one bid per bidder is allowed)
Key Notes	<ul style="list-style-type: none"> ✓ This RFE is for technical qualification-based empanelment only. ✓ No financial bid is required or will be evaluated. ✓ Empanelled firms will later participate in separate financial bidding for project-specific work orders.

9. PHYSICAL SUBMISSION OF DOCUMENTS (ITB 10.3)

Parameter	Details
Is Physical Submission Required?	✓ Yes (For Verification of Originals / Self-Attested Copies of Scanned Documents)
List of Documents to Be Submitted Physically	<ol style="list-style-type: none"> 1. Form 1: Application Form 2. Form 1.1: Bidder Information 3. Form 7: Bid Securing Declaration 4. MSME / Start-up Certificate (If applicable)
Deadline for Physical Submission	Physical submission of documents (except EMD, wherever applicable) is not required. The Procuring Entity may request physical verification of specific documents only from the successful bidder(s) if necessary

Parameter	Details
Address for Submission	Office of Surveyor General of India, SGO, Hathibarkala Estate, Survey of India, Dehradun , Pin code-248001
Important Clarifications	<ul style="list-style-type: none"> ✓ No financial proposal is required under this RFE. ✓ Submission pertains only to technical qualification documents.

10. DOCUMENTS RELATING TO BID SECURITY & PERFORMANCE SECURITY

Parameter	Details
Bid Security (ITB 9.4)	<ul style="list-style-type: none"> ✓ No monetary bid security is required. ✓ Bidders must submit a "Bid Securing Declaration" as per Form 7. ✓ In addition, technically qualified bidders will be required to pay a non-refundable Empanelment Registration Fee of ₹25,000 at the time of empanelment confirmation.
Performance Security (ITB 13.2.4)	<ul style="list-style-type: none"> ✓ Not applicable at the empanelment stage. ✓ Performance security will only be required at the project work order stage (separate project-based RFP).
Form of Security & Addressing Authority	Not applicable under this RFE (Will be included in project-specific bidding).

10.1 ADDITIONAL CLAUSES

Clause	Description
Integrity Pact Submission (ITB 9.2.1)	Required (To be signed & submitted with the bid)
Independent External Monitor (IEM)	[Include if applicable – Name & Contact Details]
Price Variation Clause (ITB 6.2.2)	Not Applicable (No Financial Bid Involved)
Advance Payments Provided	Not Applicable at Empanelment Stage
Quantity Splitting / Parallel Orders (ITB 13.1.2)	Not Applicable

Clause	Description
Whether Total Work is Divided into Packages (ITB 12.2)	Yes (Refer to Attachment-1 to TIS for State-wise Packages)
Whether Technical & Financial Evaluation is Package-wise (ITB 12.2, 12.4, 13.2)	Only Technical Evaluation is Conducted (No Financial Evaluation at This Stage)
Letter of Award (LoA) Issuance	<p>✓ Empanelment LoA will be issued post technical evaluation.</p> <p>✓ Project-specific LoA will be issued under separate financial bidding RFP.</p>

Attachment 1 to TIS: STATE/UT-WISE SERVICE CATEGORY SELECTION FOR EMPANELMENT

Instructions for Bidders:-

- ✓ Bidders must indicate the states/UTs where they seek empanelment for specific service categories.
- ✓ Bidders can apply for multiple states/UTs and multiple service categories.
- ✓ Only those empanelled in a state/UT will be eligible for project-specific financial bidding in that region.

State/UT-Wise Service Category Selection Table

State/UT	Drone Services for Ortho Rectified Imagery (ORI) & DSM	Drone Services for 3D City Model	Drone Services for ORI and Terrain Survey using LiDAR	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	2D Feature Extraction Services	3D Feature Extraction & Vector Model Services	DSM to DTM Conversion Services	Geo-Positioning Services (Horizontal Control)	Geo-Positioning Services (Vertical Control)	Georeferencing Services
Andhra Pradesh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arunachal Pradesh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bihar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chhattisgarh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Goa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gujarat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

State/UT	Drone Services for Ortho Rectified Imagery (ORI) & DSM	Drone Services for 3D City Model	Drone Services for ORI and Terrain Survey using LiDAR	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	2D Feature Extraction Services	3D Feature Extraction & Vector Model Services	DSM to DTM Conversion Services	Geo-Positioning Services (Horizontal Control)	Geo-Positioning Services (Vertical Control)	Georeferencing Services
Haryana	■	■	■	■	■	■	■	■	■	■	■
Himachal Pradesh	■	■	■	■	■	■	■	■	■	■	■
Jharkhand	■	■	■	■	■	■	■	■	■	■	■
Karnataka	■	■	■	■	■	■	■	■	■	■	■
Kerala	■	■	■	■	■	■	■	■	■	■	■
Madhya Pradesh	■	■	■	■	■	■	■	■	■	■	■
Maharashtra	■	■	■	■	■	■	■	■	■	■	■
Manipur	■	■	■	■	■	■	■	■	■	■	■
Meghalaya	■	■	■	■	■	■	■	■	■	■	■
Mizoram	■	■	■	■	■	■	■	■	■	■	■
Nagaland	■	■	■	■	■	■	■	■	■	■	■
Odisha	■	■	■	■	■	■	■	■	■	■	■
Punjab	■	■	■	■	■	■	■	■	■	■	■
Rajasthan	■	■	■	■	■	■	■	■	■	■	■
Sikkim	■	■	■	■	■	■	■	■	■	■	■
Tamil Nadu	■	■	■	■	■	■	■	■	■	■	■
Telangana	■	■	■	■	■	■	■	■	■	■	■
Tripura	■	■	■	■	■	■	■	■	■	■	■
Uttar Pradesh	■	■	■	■	■	■	■	■	■	■	■
Uttarakhand	■	■	■	■	■	■	■	■	■	■	■
West Bengal	■	■	■	■	■	■	■	■	■	■	■
Andaman & Nicobar Islands	■	■	■	■	■	■	■	■	■	■	■
Chandigarh	■	■	■	■	■	■	■	■	■	■	■
Dadra & Nagar Haveli and Daman & Diu	■	■	■	■	■	■	■	■	■	■	■
Delhi	■	■	■	■	■	■	■	■	■	■	■
Jammu & Kashmir	■	■	■	■	■	■	■	■	■	■	■
Ladakh	■	■	■	■	■	■	■	■	■	■	■

State/UT	Drone Services for Ortho Rectified Imagery (ORI) & DSM	Drone Services for 3D City Model	Drone Services for ORI and Terrain Survey using LiDAR	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	2D Feature Extraction Services	3D Feature Extraction & Vector Model Services	DSM to DTM Conversion Services	Geo-Positioning Services (Horizontal Control)	Geo-Positioning Services (Vertical Control)	Georeferencing Services
Lakshadweep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Puducherry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section II: Instructions to Bidders (ITB)

1. The Tender Document

1.1 Basic Tender Details

This **Request for Empanelment (RFE) Document** (hereinafter referred to as the '**Tender Document**') sets forth the **terms and conditions for empanelment of firms** for providing **Geospatial Services** (hereinafter referred to as '**the Services**'), as detailed in **Section VI: Schedule of Requirements**.

Key Aspects of This Empanelment Process:-

This RFE is intended solely for **empanelment based on technical qualification**. No financial bids are required or evaluated at this stage.

- ✓ **No firm—new or already empanelled—will receive automatic qualification.** All firms must undergo technical evaluation based on revised class-wise eligibility and qualification criteria.
- ✓ **Financial proposals will be invited separately** from empanelled firms for specific project-based work orders by State Geospatial Directorates.
- ✓ Firms applying for **new service categories** must demonstrate technical qualification for each such category individually.
- ✓ The empanelment process introduces a **classification system (Class C, B, A, A+)** based on annual turnover to accommodate firms of varying financial and technical capacity.
- ✓ Empanelment is valid for **three (3) years**, with **six-monthly performance reviews** and provisions for **upgradation or degradation** of empanelment class.

Bidders are advised to carefully study this Tender Document, which includes:

- Detailed technical qualification criteria and eligibility conditions
- Evaluation methodology and class-wise compliance requirements
- Submission guidelines and service category scopes

The **Tender Information Summary (TIS)** appended to **Section I: Notice Inviting Empanelment (NIE)** provides a ready reference to key information for participation.

The term 'Services' as used throughout this document refers to the **acquisition, processing, analysis, and delivery of geospatial data** across multiple categories. It may include **incidental goods and works** only if explicitly stated in the category scope or project-specific RFPs.

This empanelment shall enable the State Geospatial Directorates to issue **project-specific Requests for Financial Proposals (RFPs)** to empanelled firms, ensuring targeted, efficient, and scalable implementation of geospatial initiatives.

1.2 Interpretations, Definitions, Abbreviations and Document Conventions

Section IV: General Conditions of Empanelment(GCE), details Tenets of interpretation (GCE-clause 1.1), Definitions (GCE-clause 1.2), Document conventions (GCE-clause 1.3) and Abbreviations (GCE-clause 1.4), which shall also apply to the rest of the Tender Document.

1.3 Overview of Contents

- 1) Unless otherwise stipulated in TIS/ AITB, the Sections, Forms and Formats comprising this Tender Document are described in ITB-clauses 1.4, 1.5 and 1.6 below. A BOQ file separately available on the eProcurement Portal is also part of this Tender Document. Any generic

reference to Tender Document shall also imply a reference to any/ all the sections, Forms, Formats and the BOQ file or other files that comprise this Tender Document.

2) Bidder must submit the bid in the Forms/ Formats mentioned in ITB-clauses 1.5 and 1.6 below. The sections mentioned in ITB-clause 1.4 below need not be signed or returned by the bidders; however, Bidder must declare in his bid Form (Form 1) that he has read, understood, complied, and stands bound by all requirements of these sections:

1.4 Sections of the Tender Document (need not be signed or uploaded)

Unless otherwise stipulated in TIS/ AITB, the Tender Document contains the following sections, which are described in subsequent sub-clauses:

- 1) Section I: Notice Inviting Empanelment (NIE) and its Appendix: Tender Information Summary (TIS)
- 2) Section II: Instructions to Bidders (ITB)
- 3) Section III: Appendix to Instructions to Bidders (AITB)
- 4) Section IV: General Conditions of Empanelment (GCE)
- 5) Section V: Special Conditions of Empanelment (SCE)
- 6) Section VI: Schedule of Requirements
 - a) Section VI-1: Services and Activities Schedule
- 7) Section VII: Performance Standards and Quality Assurance
 - a) Section VII-1: Method Statement
 - b) Section VII-2: Work Plan
 - c) Section VII-3: Critical Material Schedule
- 8) Section VIII: Qualification Criteria
 - a) Section VIII-1: Key Personnel Schedule
 - b) Section VIII-2: Critical Equipment Schedule

1.4.1 Section I: Notice Inviting Empanelment (NIE) and its Appendix: Tender Information Summary (TIS)

Section I – Notice Inviting Empanelment (NIE) and its Appendix – Tender Information Summary (TIS) provides a synopsis of information relevant for a Bidder to decide on participating in the Tender. Any generic reference to NIE shall also imply a reference to TIS as well. Bidders must fill up 'Form 5: Terms and Conditions - Compliance' regarding any deviations from this Schedule.

1.4.2 Section II: Instructions to Bidders (ITB) and Section III: Appendix to Instructions to Bidders (AITB)

Section II: "Instructions to Bidders" - ITB along with Section III: "Appendix to Instructions to Bidders – AITB" provides the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of Bids. It also includes the mode and procedure adopted for receipt/ opening, scrutiny/ evaluation of Bids, and contract award. In case of a conflict, provisions of AITB shall prevail over those in the ITB. Any generic reference to ITB shall also imply a reference to AITB as well. Bidders must fill up 'Form 5: Terms and Conditions - Compliance' regarding any deviations from this Schedule.

1.4.3 Section IV: General Conditions of Empanelment(GCE) and Section V:Special Conditions of Empanelment(SCE)

Section IV – General Conditions of Empanelment(GCE) and Section V – Special Conditions of Empanelment(SCE) describe the conditions that shall govern the resulting contract. In case of a conflict, provisions of SCE shall prevail over those in the GCE. Any generic reference to GCE shall also imply a reference to SCE as well. In case of any conflict, provisions of GCE/ SCE shall prevail over those in ITB/ AITB. Bidders must fill up 'Form 5: Terms and Conditions - Compliance' regarding any deviations from terms and conditions in this and other Schedules.

1.4.4 Section VI: Schedule of Requirements and Section VI-1: Services Schedule

Section VI: Schedule of Requirements and Section VI-1: Service and Activities Schedule describe the background, purpose/ objectives, description/ scope, deliverables/ outcomes, quantum, timelines of Services required etc. The requirements may consist of more than one schedule. Each schedule may contain more than one Service. Bidders must fill-up 'Form 2: Schedule of Requirements - Compliance' and its sub-forms regarding these Schedules.

1.4.5 Section VII: Performance Standards and Quality Assurance

- 1) Section VII – Performance Standards and Quality Assurance stipulates the quantitative/ qualitative parameters/ limits/ thresholds for Performance standards/ Service Levels and functional/ technical specifications to which the service must be performed. It shall stipulate procedures for measurement, reporting and monitoring of performance parameters, including institutional or third-party arrangements for this purpose. It shall also stipulate the procedure for resolution and escalation in case of deficiency in performance/ quality/ service levels. In the case of long-term and complex services, it may stipulate a Service-Level Agreement (SLA) agreement which must be complied with during delivery of Services. Performance Standards shall also include statutory compliance required for Occupational Safety, Health and Working Conditions requirements during delivery of Services.
- 2) Procuring Entity may, if considered necessary, specify Section VII-1: Method Statement, Section VII-2: Work Plan and Section VII-3: Critical Material Schedule required for the performance of services to desired quality and standards. Otherwise, these may be left to be quoted by the Bidder.
- 3) Bidders must fill up the following Forms regarding this Schedule:
 - a) Form 3: Performance Standards and Quality Assurance - Compliance
 - b) Form 3.1: Method Statement
 - c) Form 3.2: Work-Plan
 - d) Form 3.3: Personnel Deployment Plan
 - e) Form 3.4: Equipment Deployment Form
 - f) Form 3.5: Materials Deployment Plan

1.4.6 Section VIII: Qualification Criteria; Section VIII-1: Key Personnel Schedule and Section VIII-2: Critical Equipment Schedule:

- 1) These Sections lay down the Qualifying Criteria for a bid/ Bidder to be considered a responsive bid/ bidder for further evaluation. Bids/ bidders not meeting these Qualification criteria shall be rejected as nonresponsive. It may indicate the extent of dispensation allowed for Start-ups under ITB-clause4.3.2-2) and Make in India -JV/Cs under ITB 4.1.7-2. Unless

otherwise stipulated in Section VII: Qualification Criteria, the Qualification Criteria shall include:

- a) Criteria 1: Experience and Past Performance
 - i) Similar Experience
 - ii) Non-performing Contracts and Litigation
- b) Criteria 2: Performance Capability
 - i) Key Personnel
 - ii) Critical Equipment
- c) Criteria 3: Financial Capability
 - i) Financial Ratios
 - ii) Turnover
 - iii) Financial Liquidity

2) Bidders must fill up the following Forms regarding this Schedule. Forms quoted by the Bidder under Form 3 shall also be evaluated for determining compliance to qualification criteria:

- a) Form 4: Qualification Criteria - Compliance
- b) Form 4.1: Performance Statement.
- b) Form 4.2: Non-performance, Litigation Statement
- c) Form 4.3: Financial Capability Statements

3) Following Forms quoted by the Bidder under Form 3 shall also be evaluated for determining compliance to qualification criteria.

- i. Form 3.3: Personnel Deployment Plan
- ii. Form 3.4: Equipment Deployment Plan

1.5 Forms (To be filled, digitally signed, and uploaded by Bidders)

Please refer to ITB-clause 1.5 above to relate the following forms to the corresponding Sections.

- 1) Form 1: bid Form – (To serve as a covering letter to both the Techno-commercial and Financial Bids)
 - a) Form 1.1: Bidder Information
 - b) Form 1.2: Eligibility Declarations
 - c) Form 1.3: Declaration by Agents/ Associates of Foreign Principals
- 2) Form 2: Schedule of Requirements - Compliance
- 3) Form 3: Performance Standards and Quality Assurance - Compliance
 - a) Form 3.1: Method Statement
 - b) Form 3.2: Work-Plan
 - c) Form 3.3: Personnel Deployment Plan
 - d) Form 3.4: Equipment Deployment Plan
 - e) Form 3.5: Materials Deployment Plan

- 4) Form4: Qualification Criteria- Compliance
 - a) Form 4.1: Performance Statement
 - b) Form 4.2: Non-performance, Litigation Statement
 - c) Form 4.3 Financial Capability Statements
- 5) Form5: Terms and Conditions - Compliance
- 6) Form6: Checklist for the Bidders
- 7) Form7: Documents Relating to Bid Security
- 8) BOQ Excel Sheet (To be downloaded from the Portal).
- 9) Form8: Integrity Pact

1.6 Other Formats

- 1) Format 1: Contract Form(Required after Letter of Award)
 - a) Format 1.1: Description of Services
 - i) Format 1.1.1: Personnel Deployment Plan
 - ii) Format 1.1.2: Equipment Deployment Plan
 - iii) Format 1.1.3: Materials Deployment Plan
 - b) Format 1.2: Price Schedule
 - c) Format 1.3: Bank Guarantee Format for Performance Security
 - d) Format 1.4: Certification by Prospective Arbitrators
- 2) Format 2: Authorisation for Attending Pre-bid Conference. (To be filled up, if required, by Bidder)

2. Procuring Entity - Rights and Disclaimers

2.1 The Procuring Entity

Bids are to be addressed to the President through the Head of Procurement, Procuring Entity in the Survey of India (headed by Head of the Survey of India). The Tender Inviting Authority (TIA) is the designated officer for uploading and clarifying this Tender Document. The contract may designate, as required, counterpart Contract Manager (or Contract Management Team); interim/ ultimate Beneficiaries of Services and Paying authority who shall discharge designated function during contract execution.

2.2 Right to Intellectual Property and confidentiality:

- 1) The Tender Document and associated correspondence are subject to copyright laws and shall always remain the property of the Procuring Entity and must not be shared with third parties or reproduced, whether in whole or part, without the Procuring Entity's prior written consent.
- 2) However, Bidders may share these to prepare and submit its bid with its employees, subcontractor(s), or holding Company. Bidders shall obtain from them an undertaking of confidentiality similar to that imposed on Bidder under this clause.

- 3) This condition shall also apply to bidders who do not submit a bid after downloading it or who are not awarded a contract in the process.
- 4) The obligation of the Bidders under sub-clauses above, however, shall not apply to information that:
 - a) now or hereafter is or enters the public domain through no fault of Bidder;
 - b) is legally possessed by Bidder at the relevant time and was not previously obtained, directly or indirectly, from the Procuring Entity; or
 - c) Otherwise lawfully becomes available to Bidder from a third party that has no obligation of confidentiality.
- 5) The provisions of this clause shall survive completion or termination for whatever reason of the Tender Process or the contract.

2.3 Right to Reject any or all Bids

The Procuring Entity reserves its right to accept or reject any or all Bids, abandon/ cancel the Tender process, and issue another tender for the same or similar Goods at any time before the award of the contract. It would have no liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action(s).

2.4 Disclaimers

2.4.1 Regarding Purpose of the Tender Document

The Tender Document is neither an agreement nor an offer to prospective Bidder(s) or any other party hereunder. The purpose of the Tender Document is to provide the Bidder(s) with information to assist them in participation in this Tender Process.

2.4.2 Regarding Documents/ guidelines

The Tender Document, ensuing communications, and Contracts shall determine the legal and commercial relationship between the bidders/ contractors and the Procuring Entity. No other Government or Procuring Entity's document/ guidelines/ Manuals including its Procurement Manual (for internal and official use of its officers), notwithstanding any mention thereof in the Tender Document, shall have any locus-standii in such a relationship. Therefore, such documents/ guidelines/ Manuals shall not be admissible in any legal or dispute resolution or grievance redressal proceedings.

2.4.3 Regarding Information Provided

Information contained in the Tender Document or subsequently provided to the Bidder(s) is on the terms and conditions set out in the Tender Document or subject to which that was provided. Similar terms apply to information provided verbally or in documentary or any other form, directly or indirectly, by the Procuring Entity or any of its employees or associated agencies.

2.4.4 Regarding Tender Document:

- 1) The Tender Document does not purport to contain all the information Bidder(s) may require. It may not address the needs of all Bidders. They should conduct due diligence, investigation, and analysis, check the information's accuracy, reliability, and completeness, and obtain independent advice from appropriate sources. Information provided in the Tender Document

to the Bidder(s) is on a wide range of matters, some of which may depend upon interpreting the law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Procuring Entity, its employees and other associated agencies accept no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

- 2) The Procuring Entity, its employees and other associated agencies make no representation or warranty for the accuracy, adequacy, correctness, completeness or reliability, assessment, assumption, statement, or information in the Tender Document. They have no legal liability, whether resulting from negligence or otherwise, for any loss, damages, cost, or expense that may arise from/ incurred/ suffered howsoever caused to any person, including any Bidder, on such account.

3. Bidders – Eligibility and Preferential Policies

3.1 Bidders

Subject to provisions in the following clauses in this section and provisions in Tender Document, this invitation for Bids is open to all bidders **[as single entity or as JV/C]** who fulfill the 'Eligibility Criteria' stipulated in the Tender Document. In the case of the Second Stage (of two Stage Bidding or PQB) or Special Limited Tenders, this invitation is open only to such bidders who have been previously shortlisted or specifically invited.

3.1.1 Joint Ventures/ Consortium

Bids submitted by a joint venture (maximum of two firms allowed)/ Consortium (through a legally binding agreement) as partners shall comply with the following requirements:

- a) the bid shall include all the information listed in 'Bidding Forms' of this tender document;
- b) the bid and, in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all partners;
- c) One of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.
- d) the partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture/Consortium and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge;
- e) Each partner should meet at least 25% (and the lead partner at least 50%) out of the qualifying limit in case of "Experience and past Performance – Similar Experience" and "Financial Turnover". However, together JV/C should meet the full Qualification requirement.
- f) all partners of the joint venture/consortium shall be liable jointly and severally for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under (c) above, as well as in the bid and in the Agreement [in case of a successful bid];
- g) The joint venture/ Consortium agreement should indicate precisely the role of all members of JV/C in respect of planning, design, equipment, key personnel, work execution, and financing of the project.

- h) All members of JV/C should have active participation in execution during the currency of the contract. This should not be varied/modified subsequently without prior approval of the procuring entity;
- i) The joint venture/Consortium should be registered in India so as to be legally valid and binding on partners; and
- j) a copy of the Joint Venture/Consortium Agreement entered into by the partners shall be submitted with the bid. Alternatively, a Letter of Intent to execute a joint Venture/Consortium Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed Agreement.

3.1.2 Sub-Contractors

Subject to the restrictions outlined in this Tender Document, any Bidder may propose to sub-contract a part of the contract for specialised items of services, provided that the names and details of the sub-contracts are clearly stated in the bid submitted by Bidder and provided further that such sub-contractor should not circumvent the eligibility condition laid down below. Procurement of material, hire of equipment or engagement of labour shall not be considered as sub-contracting. Despite any approval granted by the Procuring Entity for such arrangements, the Bidder/ Contractor shall be solely and directly responsible for executing sub-contracted portions of the contract. The total value of the sub-contracting portion of services must not exceed the per cent of the contract price as specified in the Tender Document/ Contract (if not so specified 25 (twenty-five) percent). Sub-contracting by the contractor without the approval of the Procuring Entity shall be a breach of contract.

3.2 Eligibility Criteria for Participation in this Tender

Subject to provisions in this Tender Document, participation in this Tender Process is open to all bidders who fulfil the 'Eligibility' and 'Qualification' criteria. Bidder should meet (as on the date of his bid submission and should continue to meet till the award of the contract) the 'Eligibility Criteria' detailed in NIE-clause 3, which shall be considered to be part of this clause of ITB (even though it is not being reproduced here for the sake of brevity). Bidder shall submit a declaration about the 'Eligibility Criteria' compliance in Form 1.2 – Eligibility Declarations.

3.3 Eligibility of bidders from specified countries

Orders issued by the Government of India restricting procurement from bidders from certain countries that share a land border with India shall apply to this procurement.

- 1) Any bidder (as defined in GCE-clause 1.2) from a country that shares a land border with India¹, excluding countries as listed on the website of the Ministry of External Affairs², to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects – hereinafter called 'Restricted Countries') shall be eligible to bid in this tender only if Bidder is registered with the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT). Bidders shall enclose the certificate in this regard in Form 1 - bid Form.

¹<https://mea.gov.in/india-and-neighbours.htm>

²<http://meashboard.gov.in/indicators/92>

- 2) In Bids for Turnkey contracts, including Works contracts, the successful bidder shall not be allowed to sub-contract works to any contractor from such Restricted Countries unless such contractor is similarly registered. In such cases, the bidders shall enclose the certificate in Form 1: Bid Form.
- 3) If Bidder has proposed to sub-contract Services or incidental Goods directly/ indirectly from the vendors from such countries, such vendor shall be required to be registered with the Competent Authority. However, if Bidder procures raw material, components, and sub-assemblies from such countries' vendors, such vendors shall not require registration.
- 4) "Bidder from such Restricted Countries" means: -
 - a) An entity incorporated, established, or registered in such a country; or
 - b) A subsidiary of an entity incorporated, established, or registered in such a country; or
 - c) An entity substantially controlled through entities incorporated, established, or registered in such a country; or
 - d) An entity whose beneficial owner is situated in such a country; or
 - e) An Indian (or other) agent of such an entity; or
 - f) A natural person who is a citizen of such a country; or
 - g) A consortium/ joint venture where any member falls under any of the above
- 5) The beneficial owner shall mean:

- a) In a company or Limited Liability Partnership, the beneficial owner is the natural person(s). Whether acting alone or together or through one or more juridical persons, controlling ownership interest or exercises control through other means.

Explanation-

- i) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five percent of the company's shares or capital or profits.
- ii) "Control" shall include the right to appoint a majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder agreements or voting agreements;
- b) In the case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together or through one or more juridical persons, has ownership of entitlement to more than fifteen percent of capital or profits.
- c) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- d) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
- e) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

3.4 Conflict of Interest

Any bidder having conflict of interest, which substantially affects fair competition, shall not be eligible to bid in this tender. Bids found to have a conflict of interest shall be rejected as non-responsive. Bidder shall be required to declare the absence of such conflict of interest in Form 1.2 - Eligibility Declarations. A bidder in this Tender Process shall be considered to have a conflict of interest if the bidder:

- 1) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
- 2) receives or have received any direct or indirect subsidy/ financial stake from another bidder; or
- 3) has the same legal representative/ agent as another bidder for purposes of this bid. A Principal can authorise only one agent, and an agent also should not represent or quote on behalf of more than one Principals. However, this shall not debar more than one Authorised distributor from quoting equipment manufactured by an Original Equipment Manufacturer (OEM), in procurements under Proprietary Article Certificate; or
- 4) has a relationship with another bidder, directly or through common third parties, that puts it in a position to have access to information about or influence the bid of another Bidder or influence the decisions of the Procuring Entity regarding this Tender process; or
- 5) participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of a non-bidder firm as a sub-contractor in more than one bid; or
- 6) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services that it provided (or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm), for the procurement planning (inter-alia preparation of feasibility/ cost estimates/ Detailed Project Report (DPR), design/ technical specifications, terms of reference (ToR)/ Activity Schedule/ schedule of requirements or the Tender Document etc)of this Tender process; or
- 7) has a close business or family relationship with a staff of the Survey of India who: (i) are directly or indirectly involved in the preparation of the Tender document or specifications of the Tender Process, and the evaluation of bids; or (ii) would be involved in the implementation or supervision of resulting Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the Tender process and execution of the Contract.

3.5 Regulation of Indian Agents/Associates of Foreign Principals

Wherever the foreign principal desires to involve in this tender process, an Indian Agent/ associate, their dealings shall be regulated. Foreign Principals and their Agents/ Associates must provide required declarations in Form 1.3 – Declarations by Agents/ Associates of Foreign Principals:

- 1) The name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e., whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal authorising them specifically to make an offer in India in response to tender either directly or through the agents/ representatives.
- 2) Such Agents/ Associates shall provide self-attested documentary evidence about their identity, business details to establish that they are a bonafide business and conform to regulations.
- 3) The Bidder/ Foreign Principal must commit to submitting after the financial bid opening, due to price-sensitive information, the Agreement between them, including the amount of commission/ remuneration included in the price (s).
- 4) Confirmation on behalf of the foreign principals that the commission/ remuneration, if any, reserved for Indian Agents/ Associates in the quoted price(s), shall be paid by the Procuring Entity in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Goods and Spares.
- 5) Failure to furnish correct and detailed information shall render Foreign Principal's bid liable to be rejected as nonresponsive in addition to other punitive actions against the Foreign Principal and their Indian Agents/ Associates for violation of Code of Integrity as per the Tender Document.

4. Purchase Preference Policies of the Government

Unless otherwise stipulated in TIS/ AITB, the Procuring Entity reserves its right to grant preferences to the following categories of eligible Bidders under various Government Policies/ Directives:

- 1) Class I Local Suppliers under Public Procurement (Preference to Make in India) Order 2017" (MII) of Department for Promotion of Industry and Internal Trade, (DPIIT - Public Procurement Section) as revised from time to time.
- 2) Bidders from Micro and/ or Small Enterprises (MSEs) under Public Procurement Policy for the Micro and Small Enterprises (MSEs) Order, 2012 as amended from time to time.
- 3) Start-ups Bidders under Ministry of Finance, Department of Expenditure, Public Procurement Division OM No F.20\212014-PPD dated 25.07.2016 and subsequent clarifications; and/ or
- 4) Any other category of Bidders, as per any Government Policies, announced from time to time, if so provided in the TIS/ AITB

4.1 Make in India Order

Orders issued by the Government of India regarding eligibility to participate and for purchase preference to "Local Suppliers" to encourage 'Make in India' and promote manufacturing and production of goods and services in India shall apply to this procurement, as detailed below.

4.1.1 Categories of Local Suppliers

Bidders/Contractors are divided into three categories based on Local Content. Local content in the context of this policy is the total value of the service procured (excluding net domestic indirect taxes) minus the value of imported content in the service/ incidental Goods (including all customs duties) as a proportion of the total value, in percent):

- 1) 'Class-I local Supplier' with local content equal to or more than that prescribed in TIS or 50% if not prescribed.
- 2) 'Class-II local Supplier' with local content equal or more than that prescribed in TIS or 20% if not prescribed, but less than that applicable for Class-I local Supplier.
- 3) 'Non - Local Supplier' with local content less than that applicable for Class-II local Supplier, in sub-clause above.

4.1.2 Eligibility Restrictions based on Reciprocity.

If so stipulated in the Tender Document, entities from such countries identified as not allowing Indian companies to participate in their Government procurement shall not be allowed to participate on a reciprocal basis in this tender. The term entity of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.

4.1.3 Eligibility to participate

- 1) **Minimum local content for eligibility to participate:** Only bidders meeting the minimum prescribed local content for the product shall be eligible to participate subject to the following conditions.
- 2) **Classes of Local Suppliers eligible to Participate:** Based on the Make in India Policy, classes of local/ non-local Suppliers eligible to participate in the tender shall be declared in TIS/ AITB/ Schedule of Requirements. If not so declared, only Class-I and Class-II local Suppliers shall be eligible to participate and not non-local Suppliers.

4.1.4 Thresholds

- 1) Following thresholds shall be declared in the Tender Document.
 - a) **Minimum local content for Contractor classification:** local content percentage prescribed to qualify as Class-I or Class-II local Suppliers for various products
 - b) **Minimum local content for eligibility to participate:** Minimum local content percentage prescribed for eligibility for a bid to be considered.
 - c) **The margin of purchase preference:** The bid price quoted by Class-I Local Supplier should be within this percentage from the L-1 price quoted by Non-local or Class-II bidders for being eligible for purchase preference.
- 2) If not so declared, the default threshold shall be as follows:
 - (a) Local content for eligibility for Class-I; Class-II local Suppliers and Non-local Suppliers shall be 50% and above; 20% and above but less than 50%; and less than 20%, respectively.
 - (b) Minimum local content for eligibility to participate shall be 50%,
 - (c) The margin of purchase preference shall be 20%

4.1.5 Purchase preference to Class-I local Suppliers

- 1) Where the Services are divisible by nature:
 - a) Among all qualified bids, the lowest bid shall be termed as L-1. If L-1 is 'Class-I local Supplier', the contract for full quantity shall be awarded to L-1.
 - b) If the L-1 bid is not a 'Class-I local Supplier', 50% of the order quantity shall be awarded to L-1. After that, the lowest bidder among the 'Class-I local whose

quoted price falls within the margin of purchase preference shall be invited to match the L-1 price for the remaining 50% quantity, and a contract for that quantity shall be awarded him, subject to matching the L-1 price. In case such lowest eligible 'Class-I local Supplier' fails to match the L-1 price or accepts less than the offered quantity, the next higher 'Class-I local Supplier' within the margin of purchase preference shall be invited to match the L-1 price for the remaining quantity and so on, and the contract shall be awarded accordingly. If some quantity is still left uncovered on Class-I local Suppliers, such balance quantity shall also be ordered on the L-1 bidder.

2) Where the Services are not divisible, and in the procurement of Services where the bid is evaluated on price alone:

- a) Among all qualified bids, the lowest bid shall be termed as L-1. If L-1 is 'Class-I local Supplier', the contract shall be awarded to L-1.
- b) If L-1 is not 'Class-I local Supplier', the lowest bidder among the 'Class-I local Supplier' shall be invited to match the L-1 price subject to Class-I local Supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local Supplier' subject to matching the L-1 price.
- c) If such lowest eligible 'Class-I local Supplier' fails to match the L-1 price, the 'Class-I local Supplier' with the next higher and so on, bid within the margin of purchase preference shall be invited to match the L-1 price, and the contract shall be awarded accordingly. If none of the 'Class-I local Supplier' within the margin of purchase preference matches the L-1 price, the contract shall be awarded to the L-1 bidder.

3) Where parallel contracts are to be awarded to multiple bidders: In Bids where parallel contracts are to be awarded to multiple bidders subject to matching of L-1 rates or otherwise, the 'Class-I local Supplier' shall get purchase preference over 'Class-II local Supplier' as well as 'Non-local Supplier', as per following procedure:

- a) If there is sufficient local capacity and competition for the service to be procured, as notified by the nodal Ministry, only Class I local Suppliers shall be eligible to bid. As such, the multiple Contractors, who would be awarded the contract, should be all and only 'Class I, Local Suppliers'.
- b) In Bids, other than those mentioned above, 'Class II local Suppliers' or both 'Class II local Suppliers' and 'Non-local Suppliers' may also participate in the tender process along with 'Class I Local Suppliers'. If 'Class I Local Suppliers' qualify for the contract award for at least 50% of the tendered quantity in tender, the contract shall be awarded to all the qualified bidders as per award criteria stipulated in the Tender Documents. However, in case 'Class Local Suppliers' do not qualify for the contract award for at least 50% of the tendered quantity as per award criteria, purchase preference should be given to the 'Class I local Supplier' over 'Class II local Suppliers' / 'Non-local Suppliers' provided that their quoted rate falls within the margin of purchase preference of the highest bid considered for award of contract. To ensure that the 'Class I Local Suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity, first purchase preference has to be given to the lowest among such eligible 'Class-I local Suppliers', subject to its meeting the prescribed criteria for the award of contract as also the constraint of the maximum quantity that can be sourced from

any single Contractor. If the lowest among such 'Class-I local Suppliers' does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity shall be given to next higher among such 'Class-I local Supplier', and so on.

4.1.6 Verification of local content and violations:

- 1) The 'Class-I local Supplier'/ 'Class-II local Supplier' at the time of tender, bidding, or solicitation shall be required to indicate the percentage of local content and provide self-certification that the service offered meets the local content requirement for 'Class-I local Supplier'/ 'Class-II local Supplier', as the case may be.
- 2) In cases of procurement for a tender value above Rs. 10 crores, the 'Class-I local Supplier'/ 'Class-II local Supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practising chartered accountant (in respect of Contractors other than companies) giving the percentage of local content.
- 3) Complaints about Local content declarations may be made through the channels of Procuring Entity. Procuring Entities and Nodal Ministries may prescribe fees for such complaints.
- 4) Bids with false declarations regarding Local contents shall be rejected as responsive, in addition to punitive actions under the MII orders and for violating the Code of Integrity as per the Tender Document.

4.1.7 Manufacture under license/ technology collaboration agreements with phased indigenisation

- 1) If so, declared in TIS and/ or AITB, foreign companies shall enter into a joint venture with an Indian company to participate.
- 2) The Procuring Entity reserves its right, but without being under any obligation to do so, to grant exemption from meeting the stipulated local content to Bidders manufacturing indigenously a product developed abroad under a license from a foreign manufacturer (who holds intellectual property rights) under a technology collaboration agreement/ transfer of technology agreement with a precise phasing of increase in local content. Bidder must obtain such an exemption letter and submit it along with his bid to avail such an exemption.

4.1.8 Information to be provided by Bidders regarding Make in India policy

Bidder shall provide required self-declaration as detailed in Form 1.2 – Eligibility Declarations:

- 1) Self-declaration of their local content (and required certificate, in case of procurements above Rs 10 Crores) and their status as Class-I/ Class-II/ Non-local Supplier and their eligibility to participate as per this clause.
- 2) If the Tender Document indicates countries identified as not allowing Indian companies to participate in their Government procurement, then a declaration that they are not an 'Entity' of such countries (as per criteria of the FDI Policy of DPIIT as amended from time to time) and are therefore eligible to participate in this tender.
- 3) If a Bidder is claiming exemption (as obtained from relevant authorities) from meeting the stipulated local content on account of manufacturing the product in India under a license from a foreign manufacturer with the precise phasing of increase in local content, he must provide proof thereof.

4.2 Support/ Preferential Treatment to Micro & Small Enterprises (MSEs)

Policies of the Government to support Micro and Small Industries (MSEs, registered as per the following sub-clause) in comparison to Non-MSE enterprises shall apply to this procurement.

4.2.1 Registration of MSEs

- 1) MSEs interested in availing such benefits must enclose in Form 1.2 with their offer the Udyam Registration Certificate with the Udyam Registration Number as proof of their being MSE registered on the Udyam Registration Portal. The certificate shall be of latest but before the deadline for the bid submission.
- 2) MSEs shall be treated as owned by SC/ ST or women entrepreneurs:
 - (a) The proprietor(s) shall be SC/ ST or women In proprietary MSEs
 - (b) At least 51% shares shall be held by the SC/ ST or women partners in a partnership MSEs.
 - (c) At least a 51% share shall be held by SC/ ST or women promoters in Private Limited Companies MSEs.

4.2.2 Support to MSEs

- 1) Tender sets shall be provided free of cost to MSEs.
- 2) MSEs shall be exempted from payment of Earnest Money.(as per ITB-clause 9.4 below, they shall be required only to submit Bid Security Declaration)

4.2.3 Purchase Preference to MSEs

The Procuring Entity reserves its option to give purchase preference to MSEs compared to the non-MSE enterprises as per policies of the Government from time to time. This preference shall only apply to products produced and services rendered by Micro and Small Enterprises. If an MSE bidder quotes a price within the band of the lowest (L-1) +15 percent in a situation where the L-1 price is quoted by someone other than an MSE, the MSE bidders are eligible for being awarded up to 25 percent of the total quantity being procured if they agree to match the L-1 price. In case of more than one such eligible MSE, this 25 percent quantity shall be distributed proportionately among these bidders.

4.3 Support to Start-up Enterprises

4.3.1 Definition of Start-up Enterprises

- 1) As defined by DPIIT, an entity shall be considered as a 'Start-up':
 - a) Upto a period of ten years from the date of incorporation/ registration, if it is incorporated as a private limited company (as defined in the Companies Act, 2013) or registered as a partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2008) in India, and
 - b) Turnover of the entity for any of the financial years since incorporation/ registration has not exceeded one hundred crore rupees, and
 - c) The entity works towards innovation, development or improvement of products or processes or services or a scalable business model with a high potential for employment generation or wealth creation.
- 2) Provided that an entity formed by splitting up or reconstructing an existing business shall not be considered a 'Start-up'.

- 3) A Start-up so identified under the above definition shall be required to obtain and submit along with his bid a certificate of an eligible Start-up from the inter-Ministerial Board of Certification to obtain support.

4.3.2 Support to Start-ups

The Government of India has ordered the following support to Start-ups (as defined by the Department of Promotion of Industrial and Internal Trade - DPIIT).

- 1) **Exemption from submission of Bid Security:** Such Start-ups shall be exempted from payment of Earnest Money.(as per ITB-clause 9.4 below, they shall be required only to submit Bid Security Declaration)
- 2) **Relaxation in Prior Turnover and Experience:** The Procuring Entity reserves its right to relax the condition of prior turnover and prior experience for start-up enterprises subject to meeting of quality & technical specifications. The decision of the Procuring Entity in this regard shall be final. The decision of the Procuring Entity in this regard shall be final.

5. The Schedule of Requirements and Form of Contract

5.1 Eligible Services –Origin and Minimum Local Content

Unless otherwise stipulated in the Tender Document, all 'Services' and incidental 'Goods and Works' to be delivered under the contract must conform to i) restrictions on certain countries with land-borders with India; ii) minimum local content (Make in India Policy). If Bidder avails benefits under any preferential policy as Class-I Local Supplier or as MSE or Start-up enterprise, the Services delivered must not circumvent the provisions relating to such benefits.

5.2 Quotation for All Schedules and all Services

Unless otherwise stipulated in the Tender Document, Bidder must quote for all the schedules (and all the Services in a Schedule) in the Schedule of Requirement; otherwise, his bid would be rejected as nonresponsive.

5.3 Facilities to be Provided by the Procuring Entity

- 1) Unless otherwise stipulated in the Tender Document, no Facilities (including Reference Documents, Medical facilities, Rooms, Furniture, Transport, Access to IT Services etc.) shall be provided by the Procuring Entity to Contractor at Site.
- 2) Unless otherwise stipulated in the Tender Document, The Procuring Entity may supply without any obligation to do so, to the contractor part or whole of the quantity of the water and electricity required for the delivery of Services from the Procuring Entity's existing water/ electricity supply system at or near the site of Services on specified terms and conditions and on chargeable basis (unless specified otherwise), provided that the contractor shall arrange, at his own expense, to effect the connections and lay additional pipe/ power lines and accessories on the site. Nevertheless, it shall be the responsibility of the contractor to install adequate alternative arrangements to tide over outages in utilities or failure in supply by the Procuring Entity, and that the contractor shall not be entitled to any compensation– nor shall this be a reason for the delay in delivery of Services.
- 3) If so stipulated in the Tender Document, The Procuring Entity may hire to the contractor non-key Equipment owned and sparable by Procuring Entity for use during execution of the Services on terms and conditions and on a chargeable basis as may be stipulated in the contract or a separate agreement for Hire of such equipment.

5.4 Contract Period

The contract Period for which the Service shall be contracted shall be one year, unless terminated earlier as per the contract. In addition, at the option of the Procuring Entity, the contract period may be extended twice by three months at a time. Notice of renewal shall be provided by physical/ digital means to the Service Provider no later than thirty (30) days before the contract end.

5.5 Form of Contract

5.5.1 Form of BOQ/ Contract

Unless otherwise stipulated, the Form of BOQ/ Contract shall be Time-Based (Input admeasurement- a sum of the price of Inputs per month). Otherwise, if it is stipulated in TIS/ AITB, one of the following forms of BOQ/ Contract shall be applicable. The evaluation of bids and payments in the resulting Contract shall be as per such BOQ:

- 1) UNIE-Rate (Output admeasurement - based on price per unit of quantity of Service)
- 2) Lump sum Price
- 3) Percentage- Based (of the value of Transactions)

5.5.2 Time-Based (Inputs Admeasurement) form of BOQ/ Contract

Unless otherwise stipulated in TIS/ AITB form of BOQ/ Contract shall be 'Time-Based (Inputs Admeasurement)':

- 1) Section VI: Schedule of Requirement shall indicate the quantum, frequency and duration of the Services/ Activities and also key inputs estimated to be required per month (Personnel, Equipment, Materials and Miscellaneous) for performing the Services/ Activities to the stipulated performance standards and quality. It shall also indicate the contract Period (one year, unless otherwise stipulated) of service required.
- 2) The Bidders shall quote the quantum of inputs per month he considers necessary to perform the Services/ Activities to the required performance standards and quality, in the Techno-commercial bid in respective Deployment Plan – Form 3.3: Personnel Deployment Plan, Form 3.4: Equipment Deployment Plan, and Form 3.5: Material Deployment Plan etc.
- 3) The Bidders shall quote the monthly rates of Inputs- Personnel, Equipment, Materials and Miscellaneous in the BOQ/ financial bid as per deployment plans in his techno-commercial bid. BOQ would calculate the total monthly cost of all inputs and total bid-amount over the Contract Period.
- 4) Evaluation of Bids shall be on the total price for Services for the Contract period.
- 5) Instead of quotation of rate separately of each input element, the Tender Document may pre-indicated such rates (based on Schedule of Rates (SOR) or otherwise) in BOQ. Bidders shall indicate only one %age figure above or below (negative %age not allowed in personnel schedule) such indicated rates, and evaluation shall be based on the %age quoted.

5.5.3 UNIE-Rate (Output admeasurement) form of BOQ/ Contract

1) UNIE-Rate form of BOQ/ Contract – Define-delivery

If it is stipulated in TIS/ AITB that this is a UNIE-Rate (Output admeasurement – define volume)form of BOQ/ Contract, then:

- a) Section VI: Schedule of Requirement shall indicate the volume of required service outputs in specified units (Length, area, volume, hours/ days/ months etc.) as well as the contract Period (one year, unless otherwise stipulated) over which such volume shall be availed. Actual off-take of the volume of Services may be subject to a specified tolerance (+/- 5 % if not specified).
- b) The Bidders shall quote the per unit(e.g., length, area, volume, hourly/ daily/ monthly) price of outputs for the specified volume of service.
- c) The evaluation shall be done based on the total price of such specified volume of Services.
- d) Unless otherwise stipulated in the Tender Document, prices of Input Deployments (Personnel, equipment, materials, etc.) shall also be called for but shall be used only to price the variations and monitor performance standards, but not for evaluation of bids or payment of Services.

2) UNIE-Rate form of BOQ/ Contract–Indefinite-Delivery (Rate Contract/ on-call)

If it is stipulated in TIS/ AITB that this is a UNIE-Rate (Output admeasurement – indefinite Delivery) form of BOQ/ Contract, then:

- a) Section VI: Schedule of Requirement shall indicate only a tentative estimate of the volume of required service outputs in specified units (Length, area, volume, hours/ days/ months etc.) as well as the contract Period (one year, unless otherwise stipulated) over which such volume is likely to be availed. The Services shall be availed on-call as and when needed by the procuring entity without any commitment regarding the volume of services.
- b) The Bidders shall quote the per unit (e.g., length, area, volume, hourly/ daily/ monthly) price of outputs for the specified volume of service.
- c) The evaluation shall be done based on the total price of such indicative volume of Services.
- d) If expressly stipulated in the Tender Document, prices of Input Deployments (Personnel, equipment, materials, etc.) shall also be called for but shall be used only to price the variations and monitor performance standards, but not for evaluation of bids or payment of Services.

5.5.4 Lump sum form of BOQ/ Contract

If it is stipulated in TIS/ AITB that this is a Lump sum form of BOQ/ Contract, then:

- 1) Section VI: Schedule of Requirement shall indicate the scope of Services required.
- 2) The Bidders shall quote the Lumpsum price of complete Services.
- 3) The evaluation shall be done based on the Lumpsum price of such Services.
- 4) If expressly stipulated in the Tender Document, prices of Input Deployments (Personnel, equipment, materials, etc.) shall also be called for but shall be used only to price the variations and monitor performance standards, but not for evaluation of bids or payment of Services.

5.5.5 Percentage-Based (of Value of Transactions) form of BOQ/ Contract

If it is stipulated in TIS/ AITB that this is a Percentage of Value of Transactions form of BOQ/ Contract, then:

- 1) Section VI: Schedule of Requirement shall indicate the estimated value of required transactions as well as the contract Period (one year, unless otherwise stipulated) over which such volume shall be availed. However, there shall be no firm commitment to avail the entire value of transactions within the contract period.
- 2) The Bidders shall quote a percentage as service charge on the value of transactions.
- 3) The evaluation shall be done for the percentage quoted multiplied by the specified value of transactions.
- 4) If expressly stipulated in the Tender Document, prices of Input Deployments (Personnel, equipment, materials, etc.) may also be called for but shall be used only to price the variations and monitor performance standards, but not for evaluation of bids or payment of Services.

6. Bid Prices, Taxes and Duties

6.1 Prices

6.1.1 Competitive and Independent Prices

- a) The prices should be arrived at independently, without restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to:
 - i) those prices; or
 - ii) the intention to submit an offer; or
 - iii) the methods or factors used to calculate the prices offered.
- b) The prices should neither be nor shall be knowingly disclosed by the Bidder, directly or indirectly, to any other bidder or competitor before bid opening or contract award unless otherwise required by law.

6.1.2 Undue profiteering

- 1) **Controlled Price, if any:** The price quoted by Bidder shall not be higher than the controlled price fixed by law for the Services, if any, or where there is no controlled price, it shall not exceed the prices or contravene the norms for fixation of prices if any, laid down by Government or where the Government has fixed no such prices or norms, it shall not exceed the price appearing in any agreement, if any, relating to price regulation by any industry.
- 2) Undue profiteering: If the price quoted is higher than the controlled price in the sub-clause above, Bidder shall specifically mention this fact in his bid giving reasons for quoting a higher price(s). If he fails to do so or makes any misstatement, it shall be lawful for the Procuring Entity either to revise the price at any stage to bring it in conformity with the sub-clause (1) above or to terminate the contract for default as per the contract and avail all the remedies available therein in addition to other punitive actions for violation of Code of Integrity.

6.1.3 Price Components

- 1) Bidder shall indicate in the Price Schedule all the specified components of prices shown therein, including the unit prices and total bid prices.
- 2) All costs related to Personnel shall be based on the prevailing minimum wages and shall show applicable liabilities of EPF and ESI and other statutory allowances. Quotation of 'Nil' Service charge/ margin over such minimum wages cost of personnel shall be rejected as nonresponsive.

6.1.4 Price Schedule

- 1) Bidders are to upload only the downloaded BOQ (in excel format) after entering the relevant fields without any alteration/ deletion/ modification of other portions of the excel sheet. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a Bidder, he should clarify the same.
- 1) Bidders shall fill in their rates other than zero value in the specified cells without keeping it blank.
- 2) The quoted price shall be considered to include all relevant financial implications, including inter-alia the scope of the Services to be delivered and the incidental goods/ works to be supplied, location of the bidder, site(s) of the delivery of Services, terms of delivery, extant rules and regulations relating to taxes, duties, customs, transportation, environment, labour, Private Security Agencies, Mining & Forest of the bidder's country and in India.

6.1.5 Provisions of GST

- 1) Break up of different price elements, i.e., as per GST Act, shall be indicated separately, along with its associated HSN code and GST rate.
- 8) While quoting the basic rate, the bidder should offset the input credit available as per the GST Act.
- 9) Please refer to ITB-Clause 6.3 for further details.

6.1.6 Currencies of Bid and Payment

- 1) Unless otherwise stipulated in the Tender Document, the currency of bid and payment shall be quoted by Bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees only.
- 2) Where the Tender Document permits quotations in different currencies, then, for Services performed in India, prices shall be quoted in Indian rupees only, and for Services performed from foreign locations, prices shall be quoted either in Indian rupees or in the currency stipulated in the AITB. For evaluation, all quoted prices shall be converted into Indian Rupees as per procedure mentioned in ITB-clause 12.4.2 below.
 - a) Regarding price(s) for incidental works/ goods, if any required with the Services, the same shall be quoted in Indian Rupees if such works/ goods are to be performed in or sourced from India.
 - a) Commission for Indian Agent, if any and if payable, shall be indicated in the space provided for in the price schedule and quoted in Indian Rupees only.

6.1.7 Non-compliance

Tenders, where prices are quoted in any other way, shall be rejected as nonresponsive.

6.2 Firm/ Variable Price

6.2.1 Firm Price

Unless otherwise stipulated in the AITB, prices quoted by Bidder shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

6.2.2 Price Variation Clause:

- 1) In case the Tender Documents require/ permit offers on a variable price basis, the price quoted by the Bidders shall be subject to adjustment during the original delivery period to take care of the changes in the input cost of labour, material, and fuel/ power components under the price variation formula as stipulated in the Tender Document.
- 2) If a Bidder submits a firm price quotation against the requirement of variable price quotation, that bid shall be prima-facie acceptable and considered further, taking price variation asked for by Bidder as nil.

6.3 Goods and Services Tax (GST)

6.3.1 GST Registration Status:

- 1) All the Bidders should ensure that they are GST compliant and their quoted tax structure/ rates as per GST Act/ Rules. Bidder should be registered under GST and furnish GSTIN number and GST Registration Certificate in their offer unless they are specifically exempted from registration under specific notification/ circular/ section/ rule issued by statutory authorities.
- 2) **GST Registration Number (15-digit GSTIN).** If the bidder has multiple business verticals in a state and has separate registration for each vertical, the GSTIN of each vertical is concerned with the delivery of Services involved, as per the Schedule of Requirements and Price Schedule's scope be quoted. If the services provided are from multiple states, the bidder should mention GST registration numbers for each state separately.
- 3) **Composition scheme:** If the Bidder has opted for a composition levy under Section 10 of CGST, he should declare the fact while bidding along with GSTIN and GST registration certificate.
- 4) **Exemption from Registration:** If a bidder is not liable to take GST registration, i.e., having turnover below threshold, he shall submit undertaking/ indemnification against tax liability. Bidder claiming exemption in this respect shall submit a valid certificate from practising Chartered Accountant (CA)/ Cost Accountant with Unique Document Identification Number (UDIN) to the effect that Bidder fulfils all conditions prescribed in notification exempting him from registration. Such bidder/ dealer shall not charge any GST and/ or GST Cess in the bill/ invoice. In such case, applicable GST shall be deposited under Reverse Charge Mechanism (RCM) or otherwise as per GST Act by the Procuring Entity directly to concerned authorities. Bidder should note that his offer would be loaded with the payable GST under the RCM. Further, Bidder should notify and submit to the Procuring Entity within 15 days from the date of becoming liable to registration under GST.
- 5) The Procuring Entity's state-wise GSTINs are indicated in Section VI – Schedule of Requirements.

6.3.2 HSN Code and GST Rate:

- 1) HSN (Harmonized System of Nomenclature) code for the goods provided in this Tender Document is only indicative. It shall be the responsibility of Bidder to ensure that they quote the exact HSN Code and corresponding GST rate for each activity of the Services being offered by them
- 2) As per the GST Act, the bid and contract must show the GST Tax Rates (and GST Cess if applicable) and GST Amount explicitly and separate from the bid/ contract price (exclusive of

GST). If the price is stated to be inclusive of GST, the current rate included in the price must be declared by the bidder.

- 3) If a Bidder asks for GST (and GST Cess if applicable) to be paid extra, the rate and nature of such taxes applicable should be shown separately. Bidders should quote 'GST' if payable extra on the total basic rate of each service and quoted GST in '%' inclusive of cess.
- 4) If GST, other taxes, duties are not specified, or column is left blank in the price schedule, it shall be presumed that no such tax/ levy is applicable or payable by the Procuring Entity.
- 5) **Applicability to Imported Goods/ Services:** Following the implementation of GST, the import of commodities shall not be subject to such erstwhile applicable duties like safe guard duty, education cess, basic customs duty, anti-dumping duty, etc. All these supplementary custom duties are subsumed under GST. The supply of commodities or services or both, if imported into India, shall be considered as supply under inter-state commerce/ trade and shall attract integrated tax (IGST). The IGST rate and GST cess shall be applicable on the 'Custom Assessable Value' plus the 'Basic Customs duty applicable thereon'.

6.4 Payments

6.4.1 General

Unless otherwise stipulated, the usual payment term is 100% on delivery and acceptance of Services at 'the Site' by the Procuring Entity and production of all required documents. However, periodic "On Account" payments shall be made unless otherwise stipulated as per the procedure laid down in GCE.

6.4.2 No Advance Payments

Unless otherwise stipulated, no advance payment of any type (Mobilization, secured advances etc.), shall be made by the Procuring Entity. If so, provided the conditions for such advances shall be as per conditions stipulated therefore.

7. Downloading the Tender Document; Corrigenda and Clarifications

7.1 Downloading the Tender Document

The Tender Document shall be published and be available for download as mentioned in TIS. Bidders can obtain the Tender Document after the date and time of the start of availability till the deadline for availability. If the office happens to be closed on the deadline for the availability of the Tender Document, the deadline shall not be extended.

7.2 Corrigenda/ Addenda to Tender Document

Before the deadline for submitting bids, the Procuring Entity may update, amend, modify, or supplement the information, assessment or assumptions contained in the Tender Document by issuing corrigenda and addenda. The corrigenda and addenda shall be published in the same manner as the original Tender Document. Without any liability or obligation, the Portal may send intimation of such corrigenda/ addenda to bidders who have downloaded the document under their login. However, the bidders' responsibility is to check the website(s) for any corrigenda/ addenda. Any corrigendum or addendum thus issued shall be considered a part of the Tender Document. To give reasonable time to the prospective bidders to take such corrigendum/ addendum into account in preparing their bids, the Procuring Entity may suitably extend the deadline for the bid submission, as necessary. After the procuring entity makes such modifications, any Bidder who has submitted his bid in response to the original invitation shall have the opportunity to either withdraw his bid or

re-submit his bid superseding the original bid within the extended time of submission as per ITB-clause 10.4.1 below.

7.3 Clarification on the Tender Document

A Bidder may seek clarification of the Tender Document from Office/ Contact Person/ e-procurement Help Desk as mentioned in TIS, provided the clarifications are raised before the clarification end date mentioned in TIS (or if not mentioned, within 7 days before the deadline for the bid submission). The Procuring Entity shall respond within 5 working days of receipt of such a request for clarification. The query and clarification shall be shared on the portal with all the prospective bidders. Any modification of the Tender Document that may become necessary due to the clarification shall be made by the Procuring Entity through an Addendum/ Corrigendum issue under the sub-clause above.

8. Pre-bid Conference

- 1) If a Pre-bid conference is stipulated in the TIS, prospective bidders interested in participating in this tender may attend a Pre-bid conference to clarify the techno- commercial conditions of the Tenders at the venue, date and time specified therein. Participation in the Pre-bid conference is restricted to prospective bidders who have downloaded the Tender Document.
- 2) Participation is not mandatory. However, if a bidder chooses not to (or fails to) participate in the Pre-bid conference or does not submit a written query, it shall be assumed that they have no issues regarding the techno-commercial conditions.
- 3) The date and time by which the written queries for the Pre-bid must reach the authority and the last date for registration for participation in the Pre-bid conference are also mentioned in the TIS. If the dates are not mentioned, such date and time shall be 7 days before the date and time of the pre-bid conference.
- 4) Delegates participating in the Pre-bid conference must provide a photo identity and an authorization letter as per Format 2: "Authorization for attending a Pre-bid Conference" from their Company/ principals; else, they shall not be allowed to participate. The pre-bid conference may also be held online at the discretion of the Procuring Entity.
- 5) After the Pre-bid conference, Minutes of the Pre-bid conference shall be published on the Procuring Entity's portal within seven days from the Pre-bid conference. If required, a clarification letter and corrigendum to Tender Document shall be issued, containing amendments of various provisions of the Tender Document, which shall form part of the Tender Document. As per ITB-clause 7.2 above, to give reasonable time to the prospective bidders to take such clarifications into account in preparing their bids, the Procuring Entity may suitably extend, as necessary, the deadline for the bid submission.

9. Preparation of Bids

9.1 The bid

9.1.1 Language of the bid

Unless otherwise stipulated in the AITB, the bid submitted by Bidder and all subsequent correspondence and documents relating to the bid exchanged between Bidder and the Procuring Entity shall be written in English or the Official Language. However, the language of any printed literature furnished by Bidder in connection with its bid may be written in any other language provided a translation accompanies the same in the bid language. For purposes of interpretation of the bid, translation in the language of the bid shall prevail.

9.1.2 Acquaintance with Local Conditions and Factors

The Bidder, at his own cost, responsibility, and risk, is encouraged to visit, examine, and familiarise himself with all the site/ local conditions and factors. The Bidder acknowledges that before the submission of the bid, he has, after a complete and careful examination, made an independent evaluation of the Site/ local conditions, infrastructure, logistics, communications, the legal, environmental, and any other conditions or factors, which would have any effect on the performance of the contract. Bidders shall themselves be responsible for compliance with Rules, Regulations, Laws and Acts in force from time to time at relevant places. On such matters, the Procuring Entity shall have no responsibility and shall not entertain any request from the bidders in these regards.

9.1.3 Cost of Bidding

The Bidder(s) shall bear all direct or consequential costs, losses and expenditure associated with or relating to the preparation, submission, and subsequent processing of their Bids, including but not limited to preparation, copying, postage, delivery fees, expenses associated with any submission of samples, demonstrations, or presentations which the Procuring Entity may require, or any other costs incurred in connection with or relating to their Bids. All such costs, losses and expenses shall remain with the Bidder(s), and the Procuring Entity shall not be liable in any manner whatsoever for the same or any other costs, losses and expenses incurred by a Bidder(s) for participation in the Tender Process, regardless of the conduct or outcome of the Tender process.

9.1.4 Interpretation of Provisions of the Tender Document

The provisions in the Tender Document must be interpreted in the context in which these appear. Any interpretation of these provisions far removed from such context or other contrived or between-the-lines interpretation is unacceptable.

9.1.5 Quote Quantities/ Prices in both Numerals and Words

Although the software on the Portal may convert quantities/ rates/ amounts in numerical digits in Bids to words, the bidders are advised to ensure that there is no ambiguity in this regard.

9.1.6 Alternate Bids not allowed.

Unless otherwise stipulated in the TIS/ AITB, conditional offers, alternative offers, multiple bids by a bidder shall not be considered. The Portal shall permit only one bid to be uploaded.

9.2 Documents comprising the bid:

9.2.1 Techno-commercial bid/ Cover

"Technical Bid" shall include inter-alia the original or scanned copies of duly signed or digitally signed copies of the following documents in pdf format. Pdf documents should not be password protected. If so stipulated in TIS/ AITB, specified originals or self-certified copies of originals shall also be required to be physically submitted as per instruction contained therein. *No price details should be given or hinted at in the Technical bid:*

- 1) Form 7: Documents relating to Bid Security:** A Bid Securing Declaration (BDS) in lieu of bid security in the format provided therein shall be uploaded as per ITB clause 9.4.
- 2) Form 1: bid Form (to serve as covering letter and declarations applicable for both the Technical bid and Financial bid);**
 - a) Form 1.1: Bidder Information;**
 - a) Form 1.2: Eligibility Declarations;**
 - b) If applicable. Form 1.3: Declaration by Agents/ Associates of Foreign Principals(**ITB-clause 3.5 above)
- 3) Form 4: Qualification Criteria - Compliance:** Documentary evidence and following related forms needed to establish the Bidder's qualifications as stipulated in Section VIII: Qualification Criteria. Besides the stipulated documents, other supporting documents, literature, pamphlets may also be attached.
 - a) Form 4.1: Performance Statement**
 - b) Form 4.2 Non-performance, Litigation Statement**
 - c) Form 4.3 Financial Capability Statements (and its sub-forms)**
- 4) Form 2: Schedule of Requirements - Compliance.** Bidders should fill this form to detail the Schedules of Services offered by them, maintaining the same numbering and structure. They may add additional details not covered elsewhere in their bid. They should highlight here any deviations/ exceptions/ reservations regarding Section VI: 'Schedule of Requirements', in a chart form, without any ambiguity or conditionality along with justification and supporting documents. Even in case of no deviation, please fill in confirmations and nil deviation statements. If mentioned elsewhere in the bid, such deviations shall not be recognised and shall be null and void.
- 5) Form 3: Performance Standards and Quality Assurance - Compliance.**

Bidder shall upload the required and relevant documents like technical data, literature, drawings, and other documents. to establish that the Services offered in the bid fully conform to the Services specified by the Procuring Entity in the Tender Document. Bidder is also required to provide clause by clause compliance/ deviation Statement in a chart form (without ambiguity or conditionality along with justification) relating to all Performance Standards, Quality Assurance, Methods Statement, and Work Plan parameters. Even in case of no deviation, please fill in confirmations and nil deviation statements. If mentioned elsewhere in the bid, such deviations shall not be recognised and shall be null and void.

- a) Form 3.1: Method Statement**
- b) Form 3.2: Work-Plan**
- c) Form 3.3: Personnel Deployment Plan (shall also be evaluated for compliance to qualification criteria).**

- d) Form 3.4: Equipment Deployment Plan (shall also be evaluated for compliance to qualification criteria)
- e) Form 3.5: Materials Deployment Plan

6) Form 5: Terms and Conditions - Compliance. Bidder must comply with the entire commercial and other clauses of this Tender Document. Any deviations should be listed in a chart form without ambiguity or conditionality, along with justification and supporting documents. All such Statements and Documents shall be uploaded as Form 5. Even in case of no deviation, please fill in confirmations and nil deviation statements. If mentioned elsewhere in the bid, such deviations shall not be recognised and shall be null and void.

7) Form 6- Checklist for the Bidders: Bidder must also upload the Checklist given in the Tender Document as Form 6 to confirm that he has complied with all the instructions in the Tender Document, and nothing is inadvertently left out. This checklist is only for general guidance and is not comprehensive, and does not absolve Bidder from complying with all the requirements stipulated elsewhere in the Tender Document.

8) If stipulated in TIS/ AITB, duly signed Form 8: Integrity Pact

9) Any other format/ Form if stipulated in AITB or if considered relevant by the bidder

9.2.2 Financial bid/ Cover

"Financial bid" shall comprise the Price Schedule (To be submitted separately as an excel sheet) considering all financially relevant details, including Taxes and Duties as per ITB-clause 6.3. No additional technical details, which have not been brought out in the Technical bid shall be brought out in the financial bid.

9.3 Bid Validity

- 1) Unless specified to the contrary in the TIS/ AITB, Bids shall remain valid for a period not less than 90 days from the deadline for the bid submission stipulated in TIS. A bid valid for a shorter period shall be rejected as nonresponsive.
- 2) In case the day upto which the bids are to remain valid falls on/ subsequently declared a holiday or closed day for the Procuring Entity, the bid validity shall automatically be deemed to be extended upto the next working day.
- 3) In exceptional circumstances, before the expiry of the original time limit, the Procuring Entity may request the bidders to extend the validity period for a specified additional period. The request and the bidders' responses shall be made in writing or electronically. A bidder may agree to or reject the request. A bidder who has agreed to the Procuring Entity's request for extension of bid validity, in no case, he shall be permitted to modify his bid.

9.4 Bid Security - Related Documents

- 1) In lieu of Bid Security, all Bidders shall furnish/ upload a Bid Securing Declaration (BSD) as Form 7: Documents Relating to Bid Security, along with its Technical bid. The BSD is required to protect the Procuring Entity against the risk of the Bidder's unwarranted conduct as amplified under the sub-clause below.
- 2) The BSD provides for automatic suspension of the Bidder from being eligible for bidding in any tender in Ministry/ Department of Procuring Organisation for 2 years from the date of such enforcement. This declaration shall stand enforced if Bidder breaches the following obligation(s) under the tender conditions:

- (a) withdraws or amends his bid or impairs or derogates from the bid in any respect within the period of validity of its bid; or
- (b) after having been notified within the period of bid validity of the acceptance of his bid by the Procuring Entity:
 - i) refuses to or failed to submit the original documents for scrutiny or the required Performance Security within the stipulated time as per the conditions of the Tender Document.
 - ii) Fails or refuses to sign the contract.

3) Unsuccessful Bidders' bid-Securing Declaration shall expire, if the contract is not awarded to them, upon:

- (a) receipt by Bidder of the Procuring Entity's notification
 - i) of cancellation of the entire tender process or rejection of all bids or
 - ii) of the name of the successful bidder or
- (b) forty-five days after the expiration of the bid validity or any extension thereof

4) The bid-Securing Declaration of the successful bidder shall stand expired only when Bidder has furnished the required Performance Security and signed the Agreement.

9.5 Non-compliance with these provisions

Bids are liable to be rejected as nonresponsive if a Bidder:

- 1) fails to provide and/ or comply with the required information, instructions etc., incorporated in the Tender Document or gives evasive information/ reply against any such stipulations.
- 2) furnishes wrong and/ or misguiding data, statement(s) etc. In such a situation, besides rejection of the bid as nonresponsive, it is liable to attract other punitive actions under relevant provisions of the Tender Document for violation of the Code of Integrity.

10. Signing and Uploading of Bids

10.1 Relationship between Bidder and e-Procurement Portal

The Procuring Entity is neither a party nor a principal in the relationship between Bidder and the organisation hosting the e-procurement portal (hereinafter called the Portal). Bidders must acquaint and train themselves with the rules, regulations, procedures, and implied conditions/ agreements of the Portal. Bidders intending to participate in the bid shall be required to register in the Portal. Bidders shall settle clarifications and disputes, if any, regarding the Portal directly with them. In case of conflict between provisions of the Portal with the Tender Document, provisions of the Portal shall prevail. Bidders may study the resources provided by the Portal for Bidders.

10.2 Signing of bid

The individual signing/ digitally signing the bid or any other connected documents should submit an authenticated copy of the document(s), which authorizes the signatory to commit and submit bids on behalf of the bidder in Form 1.1: Bidder Information.

10.3 Submission/ uploading of Bids.

10.3.1 Submission/ Uploading to the Portal

- 1) No manual Bids shall be made available or accepted for submission (except for originals of scanned copies as per sub-clause 5below). In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling the required information– otherwise, the bid shall be rejected as nonresponsive.
- 2) Bids shall be received only *Online* on or before the deadline for the bid submission as notified in TIS.
- 3) Only one copy of the bid can be uploaded, and Bidder shall digitally sign all statements, documents, certificates uploaded by him, owning sole and complete responsibility for their correctness/ authenticity as per the provisions of the IT Act 2000 as amended from time to time.
- 4) Bidder need not sign or up-load the Schedules in ITB-clause 1.4 above while uploading his bid unless otherwise instructed in the Tender Document. It is assumed that Bidder commits itself to comply with all the Sections and documents uploaded by the Tender Inviting Officer.
- 5) Bidder must upload scanned copies of originals (or self-attested copies of originals – as specified). Uploaded Pdf documents should not be password protected. Bidder should ensure the clarity/ legibility of the scanned documents uploaded by him.
- 6) Since documents are digitally signed at the time of submission on the e-Procurement Portal, physical submission of documents (except EMD, wherever applicable) is not required. The Procuring Entity may request physical verification of specific documents only from the successful bidder(s) if necessary. Failure to do so is likely to result in the bid being rejected as nonresponsive. If the office is closed on the deadline for physical submission of originals, it shall stand extended to the next working day at the same time and venue. The Procuring Entity reserves its right to call for verification originals of all such self-certified documents from the Bidders at any stage of evaluation, especially from the successful Bidder(s) before the issue of Letter of Award (LoA).
- 7) Regarding the protected Price Schedule (excel format, Cover-2), Bidder shall write his name in the space provided in the specified location only. Bidder shall type rates in the figure only in the rate column of respective service(s) without any blank cell or Zero values in the rate column, without any alteration/ deletion/ modification of other portions of the excel sheet. If space is inadequate, Bidder may upload additional documents under "Additional Documents" in the "bid Cover Content."
- 8) The date and time of the deadline for the bid submission shall remain unaltered even if the specified date is declared a holiday for the Tender Inviting Officer.
- 9) The date and time of the e-Procurement server clock, which is also displayed on the dashboard of the bidders, shall be taken as the reference time for deciding the closing time of bid submission. Bidders are advised to ensure they submit their bid within the deadline and time of bid submission, taking the server clock as a reference, failing which the portal shall not accept the Bids. No request on the account that the server clock was not showing the correct time and that a particular bidder could not submit their bid because of this shall be entertained. Failure or defects on the internet or heavy traffic at the server shall not be accepted as a reason for a complaint. The Procuring Entity shall not be responsible for any failure, malfunction or breakdown of the electronic system used during the e-Tender Process.
- 10) All Bids uploaded by Bidder to the portal shall get automatically encrypted. The encrypted bid can only be decrypted/ opened by the authorised persons on or after the due date and time.

The bidder should ensure the correctness of the bid before uploading and take a printout of the system generated submission summary to confirm successful bid upload.

- 11) The Procuring Entity may extend the deadline for the bid submission by issuing an amendment as per ITB-clause 7.2 above, in which case all rights and obligations of the Procuring Entity and the bidders previously subject to the original deadline shall then be subject to the new deadline for the bid submission.
- 12) Bid submitted through modalities other than those stipulated in TIS shall be liable to be rejected as nonresponsive.

10.3.2 Implied acceptance of procedures by Bidders

Submission of bid in response to the Tender Document is deemed to be acceptance of the e-Procurement and tender procedures and conditions of the Tender Document.

10.3.3 Late Bids

The bidder shall not be able to submit his bid after the expiry of the deadline for the bid submission (as per server time). Therefore, in e-Procurement, a situation of Late Tender does not arise.

10.4 Modification, Resubmission and Withdrawal of Bids

10.4.1 Modification & Resubmission

Once submitted in e-Procurement, Bidder cannot view or modify his bid since it is locked by encryption. However, resubmission of the bid by the bidders for any number of times superseding earlier bid(s) before the date and time of submission is allowed. Resubmission of a bid shall require uploading of all documents, including financial bid afresh. The system shall consider only the last bid submitted.

10.4.2 Withdrawal

- 1) The bidder may withdraw his bid before the bid submission deadline, and it shall be marked as withdrawn.
- 2) No bid should be withdrawn after the deadline for the bid submission and before the expiry of the bid validity period. If a Bidder withdraws the bid during this period, the Procuring Entity shall be within its right to enforce Bid Securing Declaration (in lieu of forfeiture of the Bid Security), in addition to other punitive actions provided in the Tender Document for such misdemeanor.

11. Bid Opening

The date & time of the opening bid is as stipulated in TIS. Bids cannot be opened before the specified date & time, even by the Tender Inviting Officer, the Procurement Officer, or the Publisher. If the specified date of tender opening falls on or subsequently declared a holiday or closed day for the Procuring Entity, the Bids shall be opened at the appointed time on the next working day.

12. Evaluation of Bids and Award of Contract

12.1 General norms

12.1.1 Evaluation based only on declared criteria.

The evaluation shall be based upon scrutiny and examination of all relevant data and details submitted by Bidder in its/ his bid and other allied information deemed appropriate by Procuring Entity. Evaluation of bids shall be based only on the criteria/ conditions included in the Tender Document.

12.1.2 Infirmity/ Irregularity/ Non-Conformity/ Deviations - Substantive or Minor

- 1) An infirmity/ irregularity or non-conformity/ exception/ deviation/ reservation/ omission from the requirements of the Tender Document shall be considered as a substantive deviation as per the following norm, and the rest shall be considered as Minor deviation:
 - a) which affects in any substantive way the scope, quality, or performance standards of the Services;
 - b) which limits in any substantive way, inconsistent with the Tender Document, the Procuring Entity's rights or the Bidder's obligations under the contract; or
 - c) Whose rectification would unfairly affect the competitive position of other Bidders presenting substantively responsive Bids.
- 2) The decision of the Procuring Entity shall be final in this regard. Bids with substantive deviations shall be rejected as nonresponsive.
- 3) Variations and deviations and other offered benefits(Techno-commercial or Financial) above the scope/ quantum of Services stipulated in the Tender Document shall not influence evaluation Bids. If the bid is otherwise successful, such benefits shall be availed by the Procuring Entity, and these would become part of the contract.
- 4) The Procuring Entity reserves the right to accept or reject bids with any minor deviations. Wherever necessary; the Procuring Entity shall convey its observation as per sub-clause below, on such 'minor' issues to Bidder by registered/ speed post/ electronically etc. asking Bidder to respond by a specified date. If Bidder does not reply by the specified date or gives an evasive reply without clarifying the point at issue in clear terms, that bid shall be liable to be rejected as nonresponsive.

12.1.3 Clarification of Bids and shortfall documents

- 1) During the evaluation of Techno commercial or Financial Bids, the Procuring Entity may, at its discretion, but without any obligation to do so, ask Bidder to clarify its bid by a specified date. Bidder should answer the clarification within that specified date (or, if not specified, 7 days from the date of receipt of such request). The request for clarification shall be submitted in writing or electronically, and no change in prices or substance of the bid shall be sought, offered, or permitted that may grant any undue advantage to such bidder.
- 2) If discrepancies exist between the uploaded scanned copies and the Originals submitted by the bidder, the original copy's text, etc., shall prevail. Any substantive discrepancy shall be construed as a violation of the Code of Integrity, and the bid shall be liable to be rejected as nonresponsive in addition to other punitive actions under the Tender Document for violation of the Code of Conduct.
- 3) The Procuring Entity reserves its right to, but without any obligation to do so, to seek any shortfall information/ documents only in case of historical documents which pre-existed at the time of the tender opening, and which have not undergone change since then and does not grant any undue advantage to any bidder. There is a provision on the portal for requesting Short-fall documents from the bidders. The system allows taking the shortfall documents from any bidders only once after the technical bid opening.

12.1.4 Contacting Procuring Entity during the evaluation

From the time of bid submission to awarding the contract, no Bidder shall contact the Procuring Entity on any matter relating to the submitted bid. If a Bidder needs to contact the Procuring Entity for any reason relating to this tender and/ or its bid, it should do so only in writing or electronically. Any effort by a Bidder to influence the Procuring Entity during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation of the Code of Integrity, and bid shall be liable to be rejected as nonresponsive in addition to other punitive actions for violation of Code of Integrity as per the Tender Document.

12.2 Evaluation of Bids

12.2.1 Preliminary Examination of Bids - Determining Responsiveness

A substantively responsive bid is complete and conforms to the Tender Document's essential terms, conditions, and requirements, without substantive deviation, reservation, or infirmity. Only substantively responsive bids shall be considered for further evaluation. Unless otherwise stipulated in the AITB, the following are some of the crucial aspects for which a bid shall be rejected as nonresponsive:

- 1) The bid is not in the prescribed format or is not submitted as per the stipulations in the Tender Document.
- 2) Required Bid Security Declaration (Form 7) has not been provided.
- 3) Bidder is not eligible to participate in the bid as per laid down eligibility criteria;
- 4) The Services offered are not eligible as per the provision of this tender.
- 5) Bidder has quoted conditional bids or more than one bid or alternative bids unless permitted explicitly in the TIS/ AITB.
- 6) The bid validity is shorter than the required period.
- 7) The bid departs from the essential requirements stipulated in the bidding document;
- 8) Bidder has not quoted all Schedules or against a schedule in Section VI: Schedule of Requirement or has not quoted the entire Services as stipulated in that schedule.
- 9) Bidder has quoted 'Nil' Service charges/ margin over the minimum wages in Personnel Deployment Schedule.
- 10) Non-submission or submission of illegible scanned copies of stipulated documents/ declarations

12.2.2 The evaluation process in Single/ multiple Cover(s) and PQB Tenders

- 1) Unless otherwise stated, this Tender Process is for multiple (two or more) covers Bids. Initially, only the techno-commercial bids shall be opened on the stipulated date of opening of bids. After that, the techno-commercial evaluation shall be done whether these bids meet the eligibility &qualification criteria and techno-commercial aspects. Subsequent opening of financial bids and financial evaluation shall be done only of bids declared successful in techno-commercial evaluation.
- 2) If it is stipulated that this is the second stage of the two-stage tender Process or pre-qualified bidding (PQB) after shortlisting qualified bidders in the EoI/ PQB stage, evaluation of responses from the shortlisted qualified bidders shall follow the same procedure as described above for multiple covers Tender Process.

- 3) If the TIS/ AITB stipulate this to be a single cover Tender process, the single cover bids shall be opened on the stipulated date of opening of bids. After that, evaluation of eligibility/ qualification of bidders, the techno-commercial, and the financial aspects shall be done simultaneously. There shall be no interim/ separate declaration of results of the techno-commercial evaluation.

12.3 Techno-commercial Evaluation

Only substantively responsive bids shall be evaluated for techno-commercial evaluation. In evaluating the techno-commercial bid, conformity to the eligibility/ qualification criteria, technical specifications, and Quality Assurance; and commercial conditions of the offered Services to those in the Tender Document is ascertained. Additional factors incorporated in the Tender Document shall also be considered in the manner indicated therein. Bids with substantive techno-commercial deviations shall be rejected as nonresponsive. Procuring entity reserves its right to consider and allow minor deviations in technical and Commercial Conditions as per ITB-clause 12.1.2.

12.3.1 Evaluation of eligibility

Procuring Entity shall determine, to its satisfaction, whether the Bidders are eligible as per ITB-clause 3.2 and NIE-clause 3 above to participate in the Tender Process as per submission in Form 1.2: Eligibility Declarations. Tenders that do not meet the required eligibility criteria prescribed shall be rejected as nonresponsive.

12.3.2 Evaluation of Qualification Criteria

Procuring Entity shall determine, to its satisfaction, whether the Bidders are qualified and capable in all respects to perform the contract satisfactorily (subject to dispensation if any, for Start-ups, as per ITB-clause 4.3.2) as per submission in Form 4 and its sub-forms (4.1 to 4.3). This determination shall, inter-alia, consider the Bidder's Experience/ Past Performance, Performance and Financial Capabilities; for satisfying all requirements incorporated in the Tender Document. The determination shall not consider the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than specialized subcontractors if permitted in the bidding document), or any other firm(s) different from the Bidder.

12.3.3 Evaluation of Conformity to Performance Standards and Quality Assurance

The Procuring Entity shall examine the Performance Standards and Quality Assurance; Methods Statement, Input Deployment Plans and Work Plan, as per Form 3, 3.1, 3.2, 3.3, 3.4 and 3.5.

12.3.4 Evaluation of Conformity to Commercial and Other Clauses

Bidder must comply with all the Commercial and other clauses of the Tender Document as per submissions in Form 5. The Procuring Entity shall also evaluate the commercial conditions quoted by Bidder to confirm that all terms and conditions stipulated in the Tender Document have been accepted without substantive omissions/ reservations/ exception/ deviation by the Bidder. Deviations from or objections or reservations to critical provisions such as those concerning Governing laws and Jurisdiction (GCE Clause 3), Contractor's Obligations and Restrictions of its Rights (GCE Clause 5), Performance Bond/ Security (GCE Clause 5.8), Force Majeure (GCE Clause 10.7), Taxes & Duties (GCE Clause 11.2), Defects Liability Period (GCE Clause 11.7) and Code of Integrity (GCE Clause 14) will be deemed to be a material deviation.

12.3.5 Declaration of Techno-commercially Suitable Bidders and Opening of Financial Bids

Bids that succeed in the above techno-commercial evaluation shall be considered techno-commercially suitable, and financial evaluation shall be done only of such Bids. The list of such techno-commercially suitable bidders and a date/time and venue for the opening of their financial bids shall be declared on the Portal and individually to all participant bidders in accordance with ITB-clause 12.2.2 as per the type of Tender Processes.

12.4 Evaluation of Financial Bids and Ranking of Bids

12.4.1 Ranking of Financial Bids

- 1) Unless otherwise stipulated, evaluation of the financial bids shall be on the price criteria only. Financial Bids of all Techno-commercially suitable bids are evaluated and ranked to determine the lowest priced bidder.
- 2) Unless otherwise stipulated, the comparison of the responsive Bids shall be on total outgo from the Procuring Entity's pocket, to be paid to the contractor or any third party, including all elements of costs as per the terms of the proposed contract, duly delivered, commissioned, etc. as the case may be, including any taxes, duties, levies etc.
- 3) Unless otherwise stipulated, if the Schedule of Requirements contains more than one schedule, the financial ranking of bids shall be done based on all schedules put together. The bid for a schedule shall not be considered if the complete requirements prescribed in that schedule are not included in the bid;
- 4) If any bidder offers conditional discounts/ rebates in his bid or suo-motu discounts and rebates after the tender opening (techno-commercial or financial), such rebates/ discounts shall not be considered for ranking the offer. But if such a bidder does become L-1 without discounts/ rebates, such discounts/ rebates shall be availed and incorporated in the contracts;
- 5) Unless announced beforehand, the quoted price shall not be loaded based on deviations in the commercial conditions. If it is so declared, such loading of a financial bid shall be done as per the relevant provisions;
- 6) As per policies of the Government, from time to time, the Procuring Entity reserves its option to give purchase preferences to eligible categories of Bidders as indicated in the Tender Document.
- 7) evaluation of Bids shall include and consider the following taxes/ duties, as per ITB-clause 6.3 above:
 - a) in the case of Services performed in India or incidental goods of foreign origin already located in India, GST & other similar duties, which shall be contractually payable, on the Services and incidental Goods, if a contract is awarded on the bidder;
 - b) The offers shall be evaluated based on the GST rate quoted by each bidder, and the same shall be used for determining the inter-se ranking. The Procuring Entity shall not be responsible for any misclassification of HSN Number or incorrect GST rate if quoted by the bidder. Any increase in GST rate due to misclassification of HSN number shall have to be absorbed by the supplier; and
 - c) If GST is quoted extra, but with the provision that it shall be charged as applicable at the time of delivery, the offer shall be evaluated for comparison purposes by loading the maximum existing rate of GST for the product/ HSN code.
- 8) **Price Variation:** If the tenders have been invited on a variable price basis, the tenders shall be evaluated, compared, and ranked based on the position as prevailing on the last deadline for techno-commercial bid submission and not on any future date.

9) Ambiguous Financial bid: If the financial bid is ambiguous and leads to two equally valid total price amounts, it shall be rejected as nonresponsive.

12.4.2 Global Tender Enquiry (GTE, International Competitive Bidding)

If stipulated in the TIS/ AITB that this is a Global Tender Enquiry (International Competitive Bidding), the following additional aspects of the evaluation of the financial offer shall also apply:

1) Currency of Tender

In GTE tenders, if permitted in AITB, the bid price may be in foreign currencies, except for expenditure incurred in India (including incidental Works/ Goods delivered in India and agency commission, if any) which should be stated in Indian Rupees.

2) Evaluation of Offers

- a) For financial evaluation, all Bids shall be converted to Indian Rupees based on the “Bill for Collection (BC) selling” exchange rate on the last deadline for the bid submission (Techno-commercial offer) from a source as specified (State Bank of India, if not so specified) in the tender document. The offers would be compared based on the principle of the total outgo from Procuring Entity’s pockets, including all applicable taxes and duties (Customs duty, GST, and GST Cess). For bids with Letter of Credit (LC) payment, the likely LC charges (as ascertained from the Procuring Entity’s bankers) should also be loaded. Import of Goods or services or both attracts integrated tax (IGST). The IGST rate and GST cess shall be applicable on the ‘Custom Assessable Value’ plus the ‘Basic Customs duty applicable thereon’.
- b) The terms FOB, FAS, CIF, DDP etc. shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris

12.4.3 Evaluation Process in Tender cum e-Reverse Auction

If it is specified in TIS/ AITB that this is a Tender cum e-Reverse Auction Tender Process then, the e-Reverse Auction process shall be mandatorily conducted on the same portal after the financial bid opening (declaration of L-1 landed price/ s), provided the number of valid bidders is not less than the stipulated number (3 if not specified). Unless otherwise stipulated following procedure shall be followed:

1) Shortlisting of bidders eligible to participate in e-Reverse Auction:

- (a) The bids disallowed from participating in the Reverse Auction (e-RA) shall be the highest bidder(s) in the tabulation of prices in the financial bid. If the highest bidders quote the same rate, the Price Offer received last, as per the time log of the Portal, shall be removed first, on the principle of last in first out by the system.
- (b) If the number of valid bidders is less than the minimum stipulated number (or 3 if not specified), a Reverse auction shall not be conducted, and the financial bids shall be evaluated. In the case of 4 to 6 valid bidders lowest three (3) bidders shall be allowed to participate in the reverse auction. In the case of more than 6 valid bidders, only 50% of the bidders (rounded up to next integer) shall be allowed to participate.
- (c) However, if MSE bidders or Class-I Local suppliers under the Make in India policy do not come under the above criteria, but their prices in financial bids are within the policy's margin of preference, they shall be allowed to participate. Such bidders would be over and above the short-list mentioned above.

2) Reverse Auction Process (RAP)

Note: If the Portal RAP process is different from the one described below, the portal provisions shall prevail.

- (a) Upon opening the financial bids, a reverse auction platform shall be created. The reverse auction shall start within the specified period (two hours if not specified) of the bid. There shall be no participation fees for the e-Reverse auction.
- (b) Unless modified by TIA, L-1 landed price in financial bid (as per the calculation schema based on the Tender Document evaluation criteria) shall be the start bid price on which the auction shall be initiated.
- (c) The TIA shall specify the decrement value before starting the e-Reverse Auction (or, if not specified, 0.5% of the start bid price rounded off to the next unit, tens, hundreds, thousands etc., with a minimum of Rs. 1). The reduction shall have to be made as per decrement value or in multiple thereof.
- (d) An initial period of the reverse auction shall be as stipulated (or two hours if not specified). All times and periods are as per server time-stamp. There shall be auto extensions of time by specified minutes (ten minutes if not specified) in case of any reduction recorded in the last auto-extension period. The Maximum number of auto extensions shall be as stipulated (or 50 if not stipulated).
- (e) In case of service disruption at the service provider's end during the reverse auction, the reverse auction process shall start all over again, with the last recorded lowest price of prematurely ended RAP as the 'Start bid' price. The prices quoted in the prematurely ended RAP shall be binding on all the bidders for consideration if the restarted process does not trigger within the stipulated time (or by 5.00pm on the same day, if not stipulated). Disruption and restarting of RAP shall be intimated to all the bidders through system/ SMS/ e-mail through the e-procurement portal.

- 3) Bidders must submit only the landed price in the reverse auction, and only the item-wise L-1 price shall be displayed without disclosing the number of bids and names of the bidders. The landed price would not be the same for two bidders, even if any bidder makes such an attempt. While evaluating the bids, the exchange rate captured by the e-procurement system shall be considered for converting foreign currency into Indian Rupees.
- 4) On the auction's closing time expiry, the bid history showing all the last valid bids offered along with the name of the bidders shall be published. All bidders shall have the facility to see and get a print of the same for their record.
- 5) All electronic bids submitted during the reverse auction process shall be legally binding on the bidder. Only the chronologically last bid submitted by Bidder until the end of the auction shall be considered the valid financial bid of Bidder, and consideration of the same for entering into a contract by the Procuring Entity shall bind on the bidder. If a bidder does not submit his bid in the Reverse Auction, the price quoted in the financial bid shall be considered the valid price of that bidder. The status of Bidder (L-1, L-2 etc.) shall be evaluated considering either the bid price submitted in Reverse auction or the Price quoted in the financial bid, whichever is lower.
- 6) The successful L-1 bidder, after the reverse auction, has to upload within a stipulated period (within 2 working days, if not specified) the breakup of Landed Prices in the shortfall documents, at which the contract shall be awarded. While giving the breakup, the Bidder shall include the same taxes and duties as quoted while submitting the financial bid. If the L-1 bidder fails to submit the breakup of landed price within the stipulated period, the Procuring

Entity shall place an order based on the breakup of the financial bid submitted by Bidder, and the same shall be binding on the bidder.

7) **Purchase Preference**

Short-listed bidders, eligible for any purchase preference policy as per the Tender Document, shall get an opportunity to match the L-1 prices concluded after the reverse auction if their final prices in Reverse Auction fall within the permitted percentage.

12.4.4 Cartel Formation/ Pool Rates

- 1) Unless the Procuring Entity decides this to be a case of Cartel/ Pool Rates, if more than one bidder quote the same total evaluated price, then the Procuring Entity reserves its right to distribute unequal quantities among the bidders - excluding one or more bidders based on considerations like performance/ financial capabilities, any extra features/ benefits offered etc.
- 2) If Procuring Entity decides this to be a case of Cartel/ Pool Rates, leading to "Appreciable Adverse Effect on Competition" (AAEC) as identified in Competition Act, 2002, as amended from time to time, It reserves its rights to:
 - a) order any quantity on any one or more bidders without assigning any reason thereof.

And/ or

- b) consider it as a violation of the Code of Integrity and reject the bid(s) as nonresponsive in addition to other punitive actions provided in this regard in the Tender Document. In addition to such remedies, the Procuring Entity also reserves the right to refer the matter to the Competition Commission of India (CCI) for obtaining necessary relief. In addition, the attention of the bidders is drawn to Chapter VI of the "The Competition Act 2002", which deals with Penalties. Such actions shall be in addition to other rights and remedies available to the Procuring Entity under the contract and Law.

12.4.5 Reasonableness of Rates Received

Procuring Entity shall evaluate whether the rates received in the Bids in the zone of consideration are reasonable. If the rates received are considered abnormally low or unreasonably high, it reserves its right to take action as per the following sub-clauses, or as per ITB-clause 2.3, reject any or all Bids; abandon/ cancel the Tender process and issue another tender for identical or similar Services.

12.4.6 Consideration of Abnormally Low Bids

An Abnormally Low bid is one in which the bid price, in combination with other elements of the bid, appears so low that it raises substantive concerns as to the Bidder's capability to perform the contract at the offered price. Procuring Entity shall in such cases seek written clarifications from the Bidder, including detailed price analyses of its bid price concerning scope, schedule, allocation of risks and responsibilities, and any other requirements of the Tender Document. If, after evaluating the price analyses, procuring entity determines that Bidder has substantively failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity shall reject the bid/ proposal, and evaluation shall proceed with the next ranked bidder.

12.4.7 Price Negotiation

Usually, there shall be no price negotiations. However, the Procuring Entity reserves its right to negotiate with the lowest acceptable bidder (L-1), who is techno-commercially suitable for delivery of Services and on whom the contract would have been placed but for the decision to negotiate. This right shall also apply to post e-Reverse Auction process.

13. Award of Contract

13.1 The Procuring Entity's Rights

13.1.1 Right to Vary Quantities at the Time of Award:

At the time of contract award, the Procuring Entity reserves the right to increase or decrease without any change in the unit prices or other terms and conditions of the bid and the Tender Document, the quantum of Services originally stipulated in Section VI: Schedule of Requirements, provided this increase/ decrease does not exceed 25 (twenty-five) percent of tendered quantity (or any other percentage indicated in the Tender Document),.

13.1.2 Parallel Contracts or Splitting of Award

The Procuring Entity reserves its right to split the quantities and conclude Parallel contracts with more than one bidder (for the same tender) in the following circumstances:

- 1) Unless otherwise stipulated in TIS/ AITB, there shall be no parallel orders or splitting quantities among more than one Bidders.
- 2) However, if the Tender Document stipulates such parallel contracts due to the critical/ strategic/ specific nature of the Services, the manner of deciding relative share of the lowest bidder (L-1) and the rest shall be clearly defined, along with the minimum number of Bidders sought (subject to availability of suitable bids meeting the requirements) for the contract. In such cases, the bidders should not quote for less than 25% of the tendered quantity; otherwise, their offer shall be rejected as nonresponsive. Unless otherwise stipulated in the AITB, in case of splitting in two and three, the ratio of 70:30; 50:30:20, respectively shall be used. These ratios are approximate, and the Procuring Entity reserves its right to marginally vary quantities to suit capacity/ past performance of the bidder/ unit loads of packing or transportation/ relative ranking of the bids/ delivery period offered/ existing load of Bidder and other similar factors affecting smooth delivery of Services as per requirements.

13.2 Letter of Award (Acceptance - LoA) and Signing of Contract

13.2.1 Selection of Successful Bidder(s)

The Procuring Entity shall award the contract to the Bidder(s) whose bid(s) is Techno-commercially suitable and bid price(s) is lowest and reasonable, as per evaluation criteria detailed in the Tender Document.

13.2.2 Verification of Original Documents

Before issuing a Letter of Award (LoA) to the successful Bidder(s), the Procuring Entity may, at its discretion, ask Bidder to submit for verification the originals of all such documents whose scanned copies were submitted online along with the Technical bid. If so decided, the photocopies of such self-certified documents shall be verified and signed by the competent officer and kept in the records as part of the contract agreement. If the Bidder fails to provide such originals or in case of substantive discrepancies in such documents, it shall be construed as a violation of the Code of

Integrity. Such bid shall be liable to be rejected as nonresponsive in addition to other punitive actions provided in the Tender Document. The evaluation of Bids shall proceed with the subsequent ranked offers.

13.2.3 Letter of Award (LoA)

- 1) The Bidder, whose bid has been accepted and documents verified (at the discretion of Procuring Entity), shall be notified of the award by the Procuring Entity before the expiration of the bid validity period by written or electronic means. This notification (hereinafter and in the Conditions of Contract called the "Letter of Award - LoA") shall state the sum (hereinafter and in the contract called the "Contract Price") that the Procuring Entity shall pay the contractor in consideration of delivery of Services. The Letter of Award (LoA) shall constitute the legal formation of the contract, subject only to the furnishing of performance security as per the provisions of the sub-clause below. The Procuring Entity, at its discretion, may directly issue the contract subject only to the furnishing of performance security, skipping the issue of LoA.
- 2) It shall be mandatory for the successful bidder to be registered on GeM and obtain a unique GeM Seller ID. Before the placement of LoA or the contract. This ID shall be incorporated in the contract.

13.2.4 Performance Security

- 1) Within 14 days (or any other period stipulated in AITB) of receipt of the Letter of Award (LoA, or the contract if LoA has been skipped), performance Security as per details in GCE-5.8 shall be submitted by the contractor to the Procuring Entity.
- 2) If the contractor, having been called upon by the Procuring Entity to furnish Performance Security, fails to do so within the specified period, it shall be lawful for the Procuring Entity at its discretion to annul the award and enforce Bid Securing Declaration (in lieu of forfeiture of the Bid Security), besides taking any other administrative punitive action like 'Removal from List of Registered Suppliers' etc.
- 3) If the bidder, whose bid has been found to be the lowest evaluated bid withdraws or whose bid has been accepted, fails to sign the procurement contract as may be required, or fails to provide the security as may be required for the performance of the contract or otherwise withdraws from the procurement process, the Procuring Entity shall cancel the procurement process. Provided that the Procuring Entity, on being satisfied that it is not a case of cartelization, and that the integrity of the procurement process has been maintained, may offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.

13.2.5 Signing of Contract

- 1) Within seven working days of receiving performance security, the Procuring Entity shall send the contract form (as per Format 1: Contract Form along with sub-formats) duly completed and signed, in duplicate, by registered/ speed post or by suitable digital means to the successful Bidder.
- 2) If so asked by the Procuring Entity, the successful Bidder shall return the original copy of the contract, duly signed and dated, within seven days from the date of receipt of the contract, to the Procuring Entity by registered/ speed post or by a suitable digital means.

3) Otherwise, the contract shall be taken to be legally effective from the date of its signing. The contractor may point out to the Procuring Entity, in writing/ electronically, any anomalies noticed in the contract within seven days of its receipt.

13.2.6 Expiry of bid Declaring Declarations

Upon the furnishing by the successful Bidder of the Performance Security, the Procuring Entity shall promptly notify the other Bidders that their Bids have been unsuccessful. The Bid Securing Declarations of unsuccessful bidders shall expire on receipt of this notification by them, in terms of ITB-clause 9.4above. The bid-Securing Declaration of the successful bidder shall expire when Bidder has furnished the required Performance Security and signed the Agreement.

13.2.7 Publication of Tender Result

The name and address of the successful Bidder(s) receiving the contract(s) shall be published in the Portal and notice board/ bulletin/website of the Procuring Entity.

14. Grievance Redressal/ Complaint Procedure

- 1) Bidder has the right to submit a complaint or seek de-briefing regarding the rejection of his bid, in writing or electronically, within 10 days of declaration of techno-commercial or financial evaluation results. The complaint shall be addressed to the Head of Procurement.
- 2) Within 5 working days of receipt of the complaint, the Tender Inviting Officer shall acknowledge the receipt in writing to the complainant indicating that it has been received, and the response shall be sent in due course after a detailed examination.
- 3) The Tender Inviting Officer shall convey the final decision to the complainant within 15 days of receiving the complaint. No response shall be given regarding the confidential process of evaluating bids and awarding the contract before the award is notified, although the complaint shall be kept in view during such a process. However, no response shall be given regarding the following topics explicitly excluded from such complaint process:
 - a) Only a bidder who has participated in the concerned Tender Process, i.e., pre-qualification, bidder registration or bidding, as the case may be, can make such representation.
 - b) Only a directly affected bidder can represent in this regard.
 - i) In case of pre-qualification bid has been evaluated before the bidding of Technical/ financial bids, an application for review concerning the technical/ financial bid may be filed only by a bidder who has qualified in pre-qualification bid;
 - ii) In case a technical bid has been evaluated before the opening of the financial bid, an application for review concerning the financial bid may be filed only by a bidder whose technical bid is found to be acceptable.
 - c) Following decisions of the Procuring Entity shall not be subject to review:
 - i) Determination of the need for procurement.
 - ii) Complaints against performance standards except under the premise that they are either vague or too specific to limit competition
 - iii) Selection of the mode of procurement or bidding system;
 - iv) Choice of the selection procedure.
 - v) Provisions limiting the participation of bidders in the Tender Process, in terms of policies of the Government
 - vi) Provisions regarding purchase preferences to specific categories of bidders in terms of policies of the Government
 - vii) The decision to enter into negotiations with the L-1 bidder; and

viii) Cancellation of the Tender Process except where it is intended to subsequently re-tender the same Services.

15. Code of Integrity in Public Procurement, Misdemeanors and Penalties:

Procuring authorities, bidders, suppliers, contractors, and consultants should observe the highest standard of integrity and not indulge in prohibited practices or other misdemeanors, either directly or indirectly, at any stage during the Tender Process or during the execution of resultant contracts. GCE-clause 14(including the penalties prescribed therein) shall be considered to be part of this clause of ITB (even though it is not being reproduced here for the sake of brevity) and shall apply mutadis mutandis during the pre-award tender process.

Section III: Appendix to Instructions to Bidders (AITB)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

(Ref ITB-clause 1.4)

Note for Bidders: The following clauses in ITB shall be considered as modified, replaced, or nullified to the extent stated in the AITB column. In case of any conflict, the AITB shall prevail.

15.1 AITB Modification (Bid-Specific Changes)

ITB Clause	Clause Title	Detailed Modification for Clarity
ITB 2.4.2	Applicability of Procurement Guidelines	No external procurement guidelines, manuals, or policies shall apply to this empanelment. The RFE document alone governs the process.
ITB 3.1.2	Approval of Subcontractors	Prior approval for subcontractors is not required if they are explicitly named in the bid with their scope of work clearly defined.
ITB 3.4	Conflict of Interest	A bidder must not have a conflict of interest. This includes: (a) submitting multiple bids; (b) affiliation with other competing bidders; (c) influence over evaluation process. Full disclosure required. Non-disclosure may lead to disqualification.
ITB 4.1.3	Local Supplier Eligibility	Only Class I Local Suppliers are eligible to participate, in accordance with Make in India procurement policies.
ITB 4.3.2	MSEs/Startups Concessions	No relaxation in prior experience or turnover for MSEs or Startups. All bidders must meet class-specific technical qualification thresholds defined in Section VIII. However, in partial relaxation of the standard conditions, startups and MSMEs that are currently executing Survey of India contracts and have demonstrated satisfactory performance may be considered for Class C empanelment with relaxation in project volume criteria (number/value of completed projects), subject to submission of: <ul style="list-style-type: none">• Valid Sol work orders;• Satisfactory performance certificates from concerned authority; and• Compliance with all other qualification criteria including turnover,

ITB Clause	Clause Title	Detailed Modification for Clarity
		equipment, manpower, and certifications."
ITB 5.2	Participation Across Categories	Bidders may apply for one or more service categories. Each will be evaluated independently. Joint Ventures/Consortiums are allowed but must meet eligibility collectively.
ITB 5.3	Standard Data Availability	AOI and reference data (e.g., KML/KMZ, revenue maps) may be provided post-empanelment for project planning. Accuracy not guaranteed. Bidders must independently verify before relying on such data.
ITB 5.4	Empanelment Validity & Review	Empanelment will be valid for three (3) years. A six-monthly review will assess performance and resource availability. Firms may request class upgradation or may be downgraded based on review outcomes.
ITB 5.5	Financial Bidding Applicability	Not applicable. This RFE is purely for technical qualification. No financial proposal or BOQ is required. Financial bidding will occur separately for project-specific RFPs.
ITB 6.2.2	Bid Responsiveness	Not applicable. Responsiveness criteria related to financial proposals are irrelevant under this RFE.
ITB 6.4.2	Financial Evaluation	Not applicable. No financial bid will be evaluated under this RFE.
ITB 9.1.6	Alternate Bids	Alternate bids are not allowed. Consortium/JV partners may participate in only one configuration.
ITB 12.2.2	Tendering Process Type	This is a Single Stage, Single Cover process. Only technical proposals are to be submitted.
ITB 12.4.1	Evaluation of Technical Proposals	Evaluation will be category-specific and class-specific. Each category applied for will be independently assessed per Section VIII.
ITB 12.4.2	Financial Evaluation Methodology	Not applicable. No financial evaluation is conducted under this empanelment.
ITB 12.4.3	Combined Scoring	Not applicable. There is no combined technical-financial evaluation or scoring.
ITB	Award Based on	Not applicable. No quantity-based or rate-based award is part of this RFE.

ITB Clause	Clause Title	Detailed Modification for Clarity
13.1.1	Quantity	
ITB 13.1.2	Contract Awarding Process	Not applicable. Work will be awarded only through separate project-specific RFPs to empanelled firms.
ITB 13.2.1	Empanelment Award Criteria	<p>Empanelment shall be awarded based solely on technical qualification and class-wise eligibility criteria as defined in Section VIII.</p> <p>All firms, including those already empanelled, must submit a fresh application and will be evaluated based on revised qualification thresholds defined in Section VIII. No confirmation or legacy empanelment will be valid without reassessment.</p> <p>All firms that are technically qualified under this RFE for any service category and class shall be required to pay a non-refundable Empanelment Registration Fee of ₹25,000 (Rupees Twenty-Five Thousand only) per firm at the time of confirmation of empanelment.</p> <p>This Registration Fee shall be applicable:</p> <ul style="list-style-type: none"> Only once per firm, regardless of the number of categories/class applied. At the stage of issuance of Empanelment Confirmation Letter. To ensure only serious and committed entities are empaneled with the Survey of India. <p>Failure to deposit the registration fee within 15 working days of being declared technically qualified will lead to cancellation of empanelment offer.</p>
ITB 13.2.4	Bid Security	No bid security or Earnest Money Deposit (EMD) is required at the time of submission of the Technical Bid. A signed Bid Securing Declaration (Form 7) must be submitted.
ITB 13.2.6	Eligibility for Financial Bidding	<p>Empanelled firms will be allowed to participate in financial bidding only for the states and service categories they selected at the time of application.</p> <p>Any firm participating in a project-specific financial RFP (bid packet) issued by the State Geospatial Directorate and declared successful, must be technically empaneled under this RFE and registered with the Survey of India under the relevant category of services prior to award of work.</p> <p>If the firm is not already empaneled, it shall apply under the rolling empanelment window, undergo technical qualification as per Section VIII of this RFE, and obtain registration before the issuance of the project work order.</p> <p>Failure to comply shall lead to cancellation of project award, forfeiture of bid security (if applicable), and disqualification from future financial RFPs during the</p>

ITB Clause	Clause Title	Detailed Modification for Clarity
		empanelment period.
ITB 13.2.7	Publication of Results	The list of empanelled firms will be published on the eProcurement Portal. Empanelment does not imply work award. Firms must participate in project-based RFPs for financial selection.

Section IV: General Conditions of Empanelment (GCE)

1. General

1.1 Tenets of Interpretation

Unless where the context requires otherwise, throughout the contract:

- 1) The heading of these conditions shall not affect the interpretation or construction thereof.
- 4) Writing or written includes matter either whole or in part, in digital communications, manuscript, typewritten, lithographed, cyclostyled, photographed, or printed under or over signature or seal or digitally acceptable authentication, as the case may be.
- 5) Words in the singular include the plural and vice-versa.
- 6) Words importing the masculine gender shall be taken to include other genders, and words importing persons shall include any company or association or body of individuals, whether incorporated or not.
- 7) Terms and expression not herein defined shall have the meanings assigned to them in the contract Act, 1872 (as amended) or the Sale of Goods Act, 1930 (as amended) or the General Clauses Act, 1897 (as amended) or of INCOTERMS, (current edition published by the International Chamber of Commerce, Paris) as the case may be.
- 8) Any reference to 'Services' shall be deemed to include the incidental Works/ Goods also.
- 9) Any generic reference to GCE shall also imply a reference to SCE as well.
- 10) In case of conflict, provisions of SCE shall prevail over those in GCE.
- 11) Any reference to 'Contract' shall be deemed to include all other documents (inter-alia GCE, SCE) as described in GCE-clause 2.5.
- 12) Any reference to any legal Act, Government Policies or orders shall be deemed to include all amendments to such instruments, from time to time, till date.
- 13) GCE-clause 5.13 (Book Examination clause) shall not apply unless invoked explicitly in the contract.

1.2 Definitions

In the contract, unless the context otherwise requires:

- 1) "Agent" is a person employed to do any act for another or represent another in dealings with a third person. In the context of public procurement, an Agent is a representative participating in the Tender Processor Execution of a Contract for and on behalf of its principals.
- 2) "Beneficiary" (of Services/ Works) means the person for whom the Services/ Works are to be delivered as stipulated in the contract.
- 3) "bid" (including the term 'tender', 'offer', 'quotation' or 'proposal' in specific contexts) means an offer to supply goods, services or execution of works made as per the terms and conditions set out in a document inviting such offers.
- 4) "Bidder" (including the term 'Bidder', 'consultant' or 'service provider' in specific contexts) means any person or firm or company, including any member of a consortium or joint venture/ Consortium (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a Tender Process.
- 5) "Bill of Quantities" (including the term Price Schedule or BOQ) means the priced and completed Bill of Quantities forming part of the bid.
- 6) "Commercial Bank" means a bank, defined as a scheduled bank under section 2(e) of the Reserve Bank of India Act, 1934.
- 7) "Contract" (including the terms 'Purchase Order' or 'Supply Order' or 'Withdrawal Order' or 'Work Order' or 'Consultancy Contract' or 'Contract for Services', 'rate contract' or 'framework contract' or 'Letter of Award – LoA'(letter or memorandum communicating to the contractor the acceptance of his bid) or 'Agreement' or a 'repeat order' accepted/ acted upon by the contractor in specific contexts), means a formal legal agreement in writing relating to the subject matter of procurement, entered into between the Procuring Entity and the contractor on mutually acceptable terms and conditions and which are in compliance with all the relevant provisions of the laws of the country;
- 8) "Contractor" (including the terms 'Supplier' or 'Service Provider' or 'Consultant' or 'Firm' or 'Vendor' or 'Manufacturer' or 'Successful Bidder' in specific contexts) means the person, firm, company, or a Joint Venture/ Consortium (through a legally binding agreement) with whom the contract is entered into and shall be deemed to include the contractor's successors (approved by the Procuring Entity), agents, subcontractor, representatives, heirs, executors, and administrators as the case may be unless excluded by the terms of the contract;
- 9) "Contract Manager" means the Procurement Officer or any other officer or a third-party agency who has been assigned the authority to take all actions on behalf of the Procuring Entity during the execution of the contract by the contractor;
- 10) "Day", "Month", "Year" shall mean calendar day/ month or year (unless reference to financial year is clear from the context).
- 11) "Drawing" means the drawing or drawings stipulated in or annexed to the Specifications or the Tender Document/ Contract;
- 12) "Equipment" means the contractor's machinery and vehicles brought temporarily to the Site for the performance of Service.
- 13) "General Conditions" means the General Conditions of Contract, also referred to as GCE.
- 14) "Goods" (including the terms 'Stores', 'Material(s)' in specific contexts) includes all articles, material, commodity, livestock, medicines, furniture, fixtures, raw material, consumables, spare parts, instruments, machinery, equipment, industrial plant, vehicles, aircrafts, ships, railway rolling stock assemblies, sub-assemblies, accessories, a group of machines

comprising an integrated production process or such other categories of goods or intangible, products like technology transfer, licenses, patents or other intellectual properties (but excludes books, publications, periodicals, etc., for a library), in specific contexts), procured or otherwise acquired by a Procuring Entity. Any reference to Goods shall be deemed to include specific small work or some services that are incidental or consequential to the supply of such goods;

- 15) "Government" means the Central Government or a State Government as the case may be and includes agencies and Public Sector Enterprise sunder it, in specific contexts;
- 16) "Inspection" means activities such as measuring, examining, testing, analysing, gauging one or more characteristics of the goods or services or works, and comparing the same with the specified requirement to determine conformity.
- 17) "Intellectual Property Rights" (IPR) means the rights of the intellectual property owner concerning a tangible or intangible possession/ exploitation of such property by others. It includes rights to Patents, Copyrights, Trademarks, Industrial Designs, Geographical indications (GI).
- 18) "Joint Venture" means a Joint Venture or a Consortium (that is an association of several persons, or firms or companies - also referred to as JV/C)
- 19) "Materials" means all supplies, including consumables, used by the contractor for service performance or use by his staff.
- 20) "Outsourcing of Services" means deployment of outside agencies on sustained long-term basis (for one year or more, excluding short-term stand-alone Services) for the performance of routine Services (e.g., Security Services, Horticultural Services, Janie or/Cooking/Catering/Management Services for Hostels and Guest Houses, Cleaning/Housekeeping Services, Errand/Messenger Services and so forth) that were traditionally being done in-house in the Government.
- 21) "Parties": The parties to the contract are the "Contractor" and the "Procuring Entity", as defined in this clause;
- 22) "Performance Security" (includes the terms 'Security Deposit' or 'Performance Bond' or 'Performance Bank Guarantee' or other specified financial instruments in specific contexts) means a monetary guarantee to be furnished by the successful Bidder or Contractor in the form prescribed for the due performance of the contract;
- 23) "Procurement" or "public procurement" (or 'Purchase', or 'Government Procurement/ Purchase' including an award of Public-Private Partnership projects, in specific contexts) means the acquisition of Goods/ Services/ works by way of purchase, lease, license or otherwise, either using public funds or any other source of funds (e.g. grant, loans, gifts, private investment etc.) of goods, works or services or any combination thereof, by a Procuring Entity, whether directly or through an agency with which a contract for procurement services is entered into, but does not include any acquisition without consideration. The term "procure"/ "procured" or "purchase"/ "purchased" shall be construed accordingly;
- 24) "Procuring Entity" means the entity in The Procuring Organization procuring Goods, Works, or Services;
- 25) "Procurement Officer" means the officer signing the Letter of Award (LoA) and the contract on behalf of the Procuring Entity;
- 26) "Service(s)" (including the term 'Non-consultancy services' or 'Outsourcing of Services' in specific contexts) are defined by exclusion as services that cannot be classified as

Consultancy Services. Services (non-Consultancy) involve routine, repetitive physical, procedural, and non-intellectual outcomes for which quantum and performance standards can be tangibly identified and consistently applied and are bid and contracted on such basis but does not include the appointment of an individual made under any law, rules, regulations, or order issued in this behalf. Any reference to Services shall be deemed to include the supply of goods or performance of consultancy service or small works, which are incidental or consequential to such services;

- 27) "Special Conditions" means Special Conditions of Contract, which override the General Conditions, also referred to as SCE.
- 28) "Specification" or "Technical Specification" means the drawing/ document/ standard or any other details governing the construction, manufacture or supply of goods or performance of services that prescribes the requirement to which goods or services have to conform as per the contract.
- 29) "Signed" means ink signed or digitally signed with a valid Digital Signature as per IT Act 2000 (as amended from time to time). It also includes stamped, except in the case of Letter of Award or amendment thereof.
- 30) "Sub-Contractor" means a person or corporate body with an agreement with the contractor to carry out a specific part of the contract that may or may not include working on the Site.
- 31) "Temporary Works" means works designed, constructed, installed, and removed by the contractor needed during the Services' performance.
- 32) "Variation" means an instruction given by the Contract Manager, which varies the scope, quantum or performance standards of the Service performed.
- 33) "Tender"; "Tender Document"; "Tender Enquiry" or "Tender Process": 'Tender Process' is the whole process from the publishing of the Tender Document till the resultant award of the contract. 'Tender Document' means the document (including all its sections, appendices, forms, formats, etc.) published by the Procuring Entity to invite bids in a Tender Process. The Tender Document and Tender Process may be generically referred to as "Tender" or "Tender Enquiry", which would be clear from context without ambiguity.
- 34) "Works" refer to any activity involving construction, fabrication, repair, overhaul, renovation, decoration, installation, erection, excavation, dredging, and so on, which make use of a combination of one or more of engineering design, architectural design, material and technology, labour, machinery, and equipment.

1.3 Document Conventions

All words and phrases defined in GCE-clause 1.2 are written as 'Capitalised word' and shall have the defined meaning. The rest of the words shall be as per grammar, inter-alia 'Services' shall indicate definition as given in the GCE while 'services' shall have usual dictionary meaning.

1.4 Abbreviations:

Abbreviation	Definition
AITB	Appendix to Instructions To Bidders
BOQ	Bill of Quantities
BSD	Bid Securing Declaration

Abbreviation	Definition
DPIIT	Department for Promotion of Industry and Internal Trade
EFT	Electronic Funds Transfer
EPFO	Employees Provident Fund Organization
ESI	Employees State Insurance
GCE	General Conditions of Contract
GeM	Government e-Marketplace
GST	Goods and Services Tax
GSTIN	GST Identification Number
GTE	Global Tender Enquiry (International Competitive Bidding)
HSN	Harmonized System of Nomenclature
IEM	Independent External Monitor
IPR	Intellectual Property Rights
₹	Indian Rupee
ITB	Instructions To Bidders
JV	Joint Venture
JV/C	Joint Venture/ Consortium
LoA	Letter of Award (Acceptance)
MII	Make in India
MSE	Micro and Small Enterprises
MSME	Micro Small and Medium Enterprises
MSMED	MSME Development (Act)
NEFT	National Electronic Funds Transfer
NIE	Notice Inviting Empanelment
PAN	Permanent Account Number
PC	(Indian) Penal Code
PPD	Procurement Policy Division

Abbreviation	Definition
PQB	Pre-Qualification Bidding
PVC	Price Variation Clause
RAP	Reverse Auction Process
RCM	Reverse Charge Mechanism
SC	Scheduled Caste
SCE	Special Conditions of Contract
ST	Scheduled Tribe
TCS	Tax Collected at Source
TDS	Tax Deducted at Source
TIA	Tender Inviting Authority
TIS	Tender Information Summary

2. The Contract

2.1 Language of Contract

Unless otherwise stipulated in the SCE, the contract shall be written in the Official Language or English. All correspondence and other contract documents, which the parties exchange, shall also be written/ translated accordingly in that language. For purposes of interpretation of the contract, the English documents/ translation shall prevail.

2.2 The Entire Agreement

This Contract and its documents (referred to in GCE-clause 2.5 below) constitutes the entire agreement between the Procuring Entity and the contractor and supersedes all other communications, negotiations, and agreements (whether written or oral) of the Parties made before the date of this Contract. No agent or representative of either Party has the authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not outlined in this Contract.

2.3 Severability

If any provision or condition of this Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of this Contract.

2.4 Parties

The parties to the contract are the contractor and the Procuring Entity, as defined in GCE-clause 1.2 above and as nominated in the contract.

2.5 Contract Documents and their Precedence

The following conditions and documents in indicated order of precedence (higher to lower) shall be considered an integral part of the contract, irrespective of whether these are not appended/referred to in it. Any generic reference to 'Contract' shall imply reference to all these documents as well:

- 1)** Valid and authorized Amendments issued to the contract.
- 2)** the Agreement consisting of the initial paragraphs, recitals and other clauses set forth immediately before the GCE and including the format annexed to it and signatures of Procuring Entity;
 - a)** Format 1.1: Description of Services;
 - a)** Format 1.1.1: Personnel Deployment Plan;
 - b)** Format 1.1.2: Equipment Deployment Plan;
 - c)** Format 1.1.3: Material Deployment Plan;
 - d)** Format 1.2: Price Schedule;
- 3)** the Letter of Award (LoA)
- 4)** Final written submissions made by the contractor during negotiations, if any;
- 5)** the SCE
- 6)** the GCE
- 7)** the contractor's bid;
- 8)** any other document listed in the SCE as forming part of this Contract.
- 9)** Integrity Pact, if any

2.6 Modifications/ Amendments, Waivers and Forbearances

2.6.1 Modifications/ Amendments of Contract

- 1)** If any of the contract provisions must be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the Procuring Entity, and no modified provisions shall be applicable unless such modifications have been done. No variation in or modification of the contract terms shall be made except by a written amendment signed by the Procuring Entity. Requests for changes and modifications may be submitted in writing by the contractor to the Procuring Entity. At any time during the currency of the contract, the Procuring Entity may suo-moto or, on request from the contractor, by written order, amend the contract by making alterations and modifications within the general scope of the Contract.
- 2)** If the contractor does not agree to the suo-moto modifications/amendments made by the Procuring Entity, he shall convey his views within 14 days from the date of amendment/modification. Otherwise, it shall be assumed that the contractor has consented to the amendment.
- 3)** Any verbal or written arrangement abandoning, modifying, extending, reducing, or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on the Procuring Entity unless and until the same is incorporated in a formal instrument and signed by the Procuring Entity, and till then the Procuring Entity shall have the right to repudiate such arrangements.

2.6.2 Waivers and Forbearance

The following shall apply concerning any waivers, forbearance, or similar action taken under this Contract:

- 1) Any waiver of a Procuring Entity's rights, powers, or remedies under this Contract must be in writing, dated, and signed by an authorized representative of the Procuring Entity granting such waiver and must specify the terms under which the waiver is being granted.
- 2) No relaxation, forbearance, delay, or indulgence by Procuring Entity in enforcing any of the terms and conditions of this Contract or granting of an extension of time by Procuring Entity to the contractor shall, in any way whatsoever, prejudice, affect, or restrict the rights of Procuring Entity under this Contract, neither shall any waiver by Procuring Entity of any breach of Contract operate as a waiver of any subsequent or continuing breach of Contract.

2.7 Separate Contracts in Connection with Services

The Procuring Entity shall have the right to let other contracts related to or linked with the Services. The contractor shall afford other contractors' reasonable opportunity to store their materials, execute their services/ works, and properly connect and coordinate their services. The contractor shall inspect services/ works of other contractors(s) and promptly report to the Contract Manager any defects that may hinder proper execution of his Services to proper performance standards. The contractor's failure to inspect and report such defects shall constitute an acceptance of the other contractor's work as fit and proper for the performance of Contractor's services, except as to defects that may develop in the other contractor's work after such a provision Services.

3. Governing Laws and Jurisdiction

3.1 Governing Laws and Jurisdiction

- 1) This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Laws of India for the time being in force.
- 2) Irrespective of the place of delivery, or the place of performance or the place of payments under the contract, the contract shall be deemed to have been made at the place from which the Letter of Award (LoA, or the contract Agreement, in the absence of LoA) has been issued. The courts of such a place shall alone have jurisdiction to decide any dispute arising out or in respect of the contract.

3.2 Changes in Laws and Regulations

Unless otherwise stipulated in the contract, if after the last deadline for the bid submission (Techno-commercial), any law, regulation, ordinance, order or bye-law having the force of law is enacted, promulgated, abrogated, or changed in India (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/ or the contract Price, then such Delivery Date and/ or Contract Price shall be correspondingly increased or decreased, to the extent that the contractor has thereby been affected in the performance of any of its obligations under the contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable.

4. Communications

4.1 Communications

- 1) All communications under the contract shall be served by the parties on each other in writing, in the contract's language, and served in a manner customary and acceptable in business and commercial transactions.
- 2) The effective date of such communications shall be either the date when delivered to the recipient or the effective date mentioned explicitly in the communication, whichever is later.
- 3) No communication shall amount to an amendment of the terms and conditions of the contract, except a formal letter of amendment of Contract, so designated.
- 4) Such communications would be an instruction or a notification or an acceptance or a certificate from the Procuring Entity, or it would be a submission or a notification from the contractor. A notification or certificate which the contract requires must be communicated separately from other communications.
- 5) The Contract Manager shall direct the order in which the several components of the Services shall be provided, and the contractor shall execute without delay all orders given by the Contract Manager from time to time. Still, the contractor shall not be relieved thereby from responsibility for the due performance of the Services in all respects.

4.2 Persons signing the Communications

For all purposes of the contract, ~~including arbitration~~, thereunder all communications to the other party shall be signed by:

- 1) The person who has signed the contract on behalf of the contractor shall sign all correspondences. A person signing communication in respect of the contract or purported to be on behalf of the contractor, without disclosing his authority to do so, shall be deemed to warrant that he has authority to bind the contractor. If it is discovered at any time that the person, so signing has no authority to do so, the Procuring Entity reserves its right, without prejudice to any other right or remedy, to terminate the contract for default in terms of the contract and avail any or all the remedies thereunder and hold such person personally and/ or the contractor liable to the Procuring Entity for all costs and damages arising from such remedies.
- 2) Unless otherwise stipulated in the contract, the Contract Manager signing the contract shall administer the contract and sign communications on behalf of the Procuring Entity. Beneficiaries of Services and the Paying Authorities mentioned in the contract shall also administer respective functions during Contract Execution.

4.3 Address of the parties for sending communications by the other party.

For all purposes of the contract, ~~including arbitration~~, thereunder the address of parties to which the other party shall address all communications and notices shall be:

- 1) The address of the contractor as mentioned in the contract, unless the contractor has notified change by a separate communication containing no other topic to the Procuring Entity. The contractor shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid, and

- 2) The address of the Procuring Entity shall be the address mentioned in the contract. The contractor shall also send additional copies to officers of the Procuring Entity presently dealing with the contract.
- 3) In case of the communications from the contractor, copies of communications shall be marked to the Contract Manager and the Procuring Entity's officer signing the contract, and as relevant also to interim/ ultimate Beneficiaries of Services and the Paying Authorities mentioned in the contract. Unless already specified before the contract's start, the Procuring Entity and the contractor shall notify each other if additional copies of communications are to be addressed to additional addresses.

5. Contractor's Obligations and restrictions on its Rights

5.1 Changes in Constitution/ financial stakes/ responsibilities of a Contract's Business

the contractor must proactively keep the Procuring Entity informed of any changes in its constitution/ financial stakes/ responsibilities during the execution of the contract.

- 1) Where the contractor is a partnership firm, the following restrictions shall apply to changes in the constitution during the execution of the contract:
 - a) a new partner shall not be introduced in the firm except with the previous consent in writing of the Procuring Entity, which shall be granted only upon execution of a written undertaking by the new partner to perform the contract and accept all liabilities incurred by the firm under the contract before the date of such undertaking.
 - b) On the death or retirement of any partner of the contractor firm before the complete performance of the contract, the Procuring Entity may, at his option, terminate the contract for default as per the contract and avail any or all remedies thereunder.
 - c) If the contract is not terminated as provided in Sub-clause (b) above notwithstanding the retirement of a partner from the firm, that partner shall continue to be liable under the contract for acts of the firm until a copy of the public notice given by him under Section 32 of the Partnership Act, has been sent by him to the Procuring Entity in writing or electronically.

5.2 Obligation to Maintain Eligibility and Qualifications

The contract has been awarded to the contractor based on specific eligibility and qualification criteria. The contractor is contractually bound to maintain such eligibility and qualifications during the execution of the contract. Any change which would vitiate the basis on which the contract was awarded to the contractor should be pro-actively brought to the notice of the Procuring Entity within 7 days of it coming to the Contractor's knowledge. These changes include but are not restricted to:

- 1) Change regarding declarations made by it in its bid in Form 1.2: Eligibility Declaration
- 2) Change in its qualification criteria submitted in its bid in Form 4: Qualification Criteria - Compliance and its sub-forms.

5.3 Restriction on Potential Conflict of Interests

- 1) Neither the contractor nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

- a) during the term of this Contract, any business or professional activities in India that would conflict with the activities assigned to them under this Contract.
- b) after the termination of this Contract, such other activities as may be stipulated in the contract.

2) During the term of this Contract and after its termination, the contractor, and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the subject Service of this Contract and any continuation thereof) for any project resulting from or closely related to the subject Services of this Contract.

5.4 Consequences of breach by Constituents of a Contractor

Should the contractor or any of its partners or its Subcontractors or the Personnel commit a default or breach of GCE-clause 5.1 to 5.7, the Contractor shall remedy such breaches within 21 days, keeping the Procuring Entity informed. However, at its discretion, the Procuring Entity shall be entitled, and it shall be lawful on his part, to treat it as a breach of contract and avail any or all remedies thereunder. The decision of the Procuring Entity as to any matter or thing concerning or arising out of GCE-clause 5.1 to 5.7 or on any question whether the contractor or any partner of the contractor firm has committed a default or breach of any of the conditions shall be final and binding on the contractor.

5.4.1 In the case of Joint Venture/ Consortium

In the event of default or breach of GCE-clause 5.1 to 5.7 by any member, in the execution of his part of Contract, the Procuring Entity shall be so notified within 30 days by the Lead Member, or in the case of the Lead Member being the defaulter, by the member nominated as Lead Member of the remaining Joint Venture/ Consortium. Within 60 days of the said notice, the Lead Member shall assign the work of the defaulting member to any other equally competent party acceptable to the Procuring Entity to ensure the execution of that part of the contract. Failure to comply with the above provisions or if the Lead Member himself defaults shall be lawful for the Procuring Entity to terminate the contract for default and avail any or all remedies thereunder.

5.5 Assignment and Sub-contracting

- 1) the contractor shall not, save with the previous consent in writing of the Procuring Entity, sublet, transfer, or assign the contractor any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever.
- 2) The contractor shall notify the Procuring Entity in writing all subcontracts awarded under the contract if not already stipulated in the contract. In its original bid or later, such notification shall not relieve the contractor from any of its liability or obligation under the terms and conditions of the contract. Subcontract shall be only for bought out services and incidental goods/ works. Subcontracts must comply with and should not circumvent Contractor's compliance with its obligations under GCE-clause 5.1 to 5.7, based on which Contract is awarded to him.
- 3) If the contractor sublets or assigns this Contract or any part thereof without such permission, the Procuring Entity shall be entitled, and it shall be lawful on his part, to treat it as a breach of contract and avail any or all remedies thereunder.

5.6 Obligation to Indemnify Procuring Entity

5.6.1 For breach of IPR Rights

- 1)** the contractor shall indemnify and hold harmless, free of costs, the Procuring Entity and its employees and officers from and against all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which may arise in respect of the Services provided by the contractor under this Contract, as a result of any infringement or alleged infringement of any patent, utility model, registered design, copyright, or other Intellectual Proprietary Rights (IPR) or trademarks, registered or otherwise existing on the date of the contract arising out of or in connection with:
 - a)** any design, data, drawing, specification, or other documents or Services provided or designed by the contractor for or on behalf of the Procuring Entity.
 - a)** The sale by the Procuring Entity in any country of the services/ products produced by the Services delivered by the contractor, and
 - b)** The delivery of the Services by the contractor or the use of the Services at the Procuring Entity's Site
- 2)** Such indemnify shall not cover any use of the Services or any part thereof other than for the purpose indicated by or to be reasonably inferred from the contract, neither any infringement resulting from the use of the Services or any part thereof, or any service/ products produced thereby in association or combination with any other service, equipment, plant, or materials not delivered by the contractor.
- 3)** If any proceedings are brought, or any claim is made against the Procuring Entity arising out of the matters referred above, the Procuring Entity shall promptly give the contractor a notice thereof. At its own expense and in the Procuring Entity's name, the contractor may conduct such proceedings and negotiations to settle any such proceedings or claim, keeping the Procuring Entity informed.
- 4)** If the contractor fails to notify the Procuring Entity within twenty-eight (28) days after receiving such notice that it intends to conduct any such proceedings or claim, then the Procuring Entity shall be free to conduct the same on its behalf at the risk and cost to the contractor.
- 5)** At the contractor's request, the Procuring Entity shall afford all available assistance to the contractor in conducting such proceedings or claim and shall be reimbursed by the contractor for all reasonable expenses incurred in so doing.

5.6.2 For Losses and Damages Caused by Contractor

- 1)** the contractor shall indemnify and keep harmless the Procuring Entity, from and against, all actions, suit proceedings, losses, costs, damages, charges, claims, and demands of every nature and description brought or recovered against the Procuring Entity because of any act or omission or default or negligence or trespass of the contractor, his agents, or employees despite all reasonable and proper precautions may have been taken, during the execution of the Services. The contractor shall make good at his own expense all resulting losses and/ or damages to:
 - a)** the Services themselves or
 - b)** any other property of the Procuring Entity or

- c) the lives, persons, or property of others
- 2) In case the Procuring Entity is called upon to make good such costs, loss, or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof; the amount of any costs or charges including costs and charges in connection with legal proceedings, which the Procuring Entity may incur about it, shall be charged to the contractor. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained and whether or not any damage shall have been sustained.
- 3) The Procuring Entity shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings, or in anticipation of legal proceedings being instituted consequent on the action or default of the contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to Contractor, as aforesaid, any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the contractor.

5.7 Confidentiality, Secrecy and IPR Rights

5.7.1 IPR Rights

All deliverables, outputs, plans, drawings, specifications, designs, reports, and other documents and software submitted by the contractor under this Contract shall become and remain the property of the Procuring Entity and subject to laws of copyright and must not be shared with third parties or reproduced, whether in whole or part, without the Procuring Entity's prior written consent. The contractor shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Procuring Entity, together with a detailed inventory thereof. The contractor may retain a copy of such documents and software but shall not use it for any commercial purpose.

5.7.2 Confidentiality

All documents, drawings, samples, data, associated correspondence or other information furnished by or on behalf of the Procuring Entity to the contractor, in connection with the contract, whether such information has been furnished before, during or following completion or termination of the contract, are confidential and shall remain the property of the Procuring Entity and shall not, without the prior written consent of Procuring Entity neither be divulged by the contractor to any third party, nor be used by him for any purpose other than the design, procurement, or other services and work required for the performance of this Contract. If advised by the Procuring Entity, all copies of all such information in original shall be returned on completion of the contractor's performance and obligations under this contract.

5.7.3 Secrecy

If the contract declares the subject matter of this Contract as coming under the Official Secrets Act, 1923 or if the contract is marked as "Secret", the contractor shall take all reasonable steps

necessary to ensure that all persons employed in any connection with the contract, have acknowledged their responsibilities and penalties for violations under the Official Secrets Act and any regulations framed thereunder.

5.7.4 Obligations of the contractor

- 1) Without the Procuring Entity's prior written consent, the contractor shall not use the information mentioned above except for the sole purpose of performing this contract.
- 2) The contractor shall treat and mark all information as confidential (or Secret – as the case may) and shall not, without the written consent of the Procuring Entity, divulge to any person other than the person(s) employed by the contractor in the performance of the contract. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for such performance for this contract.
- 3) Notwithstanding the above, the contractor may furnish to its holding company or its Subcontractor(s) such documents, data, and other information receives from the Procuring Entity to the extent required for performing the contract. In this event, the contractor shall obtain from such holding company/ Subcontractor(s) an undertaking of confidentiality (or secrecy – as the case may be) similar to that imposed on the contractor under the above clauses.
- 4) The obligation of the contractor under sub-clauses above, however, shall not apply to information that:
 - a) the contractor needs to share with the institution(s) participating in the financing of the contract;
 - a) now or hereafter is or enters the public domain through no fault of Contractor;
 - b) can be proven to have been possessed by the contractor at the time of disclosure and which was not previously obtained, directly or indirectly, from the Procuring Entity; or
 - c) otherwise lawfully becomes available to the contractor from a third party that has no obligation of confidentiality.
- 5) The above provisions shall not in any way modify any undertaking of confidentiality (or Secrecy – as the case may be) given by the contractor before the date of the contract in respect of the contract or the Tender Document or any part thereof.
- 6) The provisions of this clause shall survive completion or termination for whatever reason of the contract.

5.7.5 Protection and Security of Personal Data

- 1) Where the contractor is processing Personal Data, as a Data Processor or otherwise for the Procuring Entity, the contractor shall:
 - a) Process the Personal Data only as per instructions from Procuring Entity (which may be specific instructions or instructions of a general nature) as set out in this Contract or as otherwise notified by Procuring Entity;
 - b) Comply with all applicable laws;
 - c) Process the Personal Data only to the extent, and in such manner as is necessary for the discharge of the contractor's obligations under this Contract or as is required by Law or any Regulatory Body;
 - d) Implement appropriate technical and organisational measures to protect Personal Data against unauthorized or unlawful Processing and accidental loss, destruction,

damage, alteration, or disclosure. These measures shall be appropriate to the harm which might result from any unauthorized or unlawful Processing, accidental loss, destruction, or damage to the Personal Data and having regard to the nature of the Personal Data which is to be protected;

- e) Take reasonable steps to ensure the reliability of its staff and agents who may have access to the Personal Data;
- f) Obtain prior written consent from the Authority to transfer the Personal Data to any sub-contractor for the provision of the Services;
- g) Not cause or permit the Personal Data to be transferred, stored, accessed, viewed, or processed outside of India without the prior written consent of the Procuring Entity.
- h) Ensure that all staff and agents required to access the Personal Data are informed of the confidential nature of the Personal Data and comply with the obligations set out in this clause.
- i) Ensure that none of the staff and agents publishes or disclose any personal data to any third parties unless directed in writing to do so by the Procuring Entity.
- j) Not disclose Personal Data to any third parties in any circumstances other than with the written consent of the Procuring Entity or compliance with a legal obligation imposed upon the Procuring Entity;

2) Notify the Procuring Entity (within five Working Days) if it receives;

- a) a request from an employee of Procuring Entity to have access to his or other employees' Personal Data; or
- b) a complaint or request relating to the Procuring Entity' obligations under the law;

3) The provision of this clause shall apply during the contract Period and indefinitely after its expiry.

5.8 Performance Bond/ Security

- 1) Within fourteen days (or any other period mentioned in Tender Document or Contract) after the issue of Letter of Award (LoA or the contract, if LoA is skipped) by the Procuring Entity, the contractor shall furnish to the Procuring Entity, performance security, valid up to sixty days (or any other period mentioned in Tender Document or Contract) after the date of completion of all contractual obligations by the contractor, including the Defect Liability obligations.
- 2) The amount of Performance security shall be as stipulated in Tender Document or Contract (or if not specified @ 3% of the contract Price)denominated in Indian Rupees or the currency of the contract and shall be in one of the following forms:
 - a) Unless otherwise stipulated in Tender Document or Contract, Account Payee Demand Draft or Fixed Deposit Receipt or Banker's Cheque is drawn on any commercial bank in India, favouring the authority mentioned in therein (or FA&CAO of the Procuring Organisation, if not mentioned).
 - b) Bank Guarantee issued by a commercial bank in India, in the prescribed form provided in Format 1.3.

- 3) If the contractor, having been called upon by the Procuring Entity to furnish Performance Security, fails to do so within the specified period, it shall be lawful for the Procuring Entity at its discretion to annul the award and enforce Bid Securing Declaration (in lieu of forfeiture of the Bid Security), besides taking any other administrative punitive action like 'Removal from List of Registered Suppliers' etc.
- 4) If the contractor during the currency of the Contract fails to maintain the requisite Performance Security, it shall be lawful for the Procuring Entity at its discretion at its discretion
 - (a) to terminate the Contract for Default besides availing any or all contractual remedies provided for breaches/ default, or
 - (b) without terminating the Contract:
 - i) recover from the contractor the amount of such security deposit by deducting the amount from the pending bills of the contractor under the contractor any other contract with the Procuring Entity or the Government or any person contracting through the Procuring Organisation or otherwise howsoever as per GCE-clause 11.4, or
 - ii) treat it as a breach of contract and avail any or all availing any or all contractual remedies provided for breaches/ default.
- 5) In the event of any amendment issued to the contract, the contractor shall furnish suitably amended value and validity of the Performance Security in terms of the amended contract within fourteen days of issue of the amendment.
- 6) The Procuring Entity shall be entitled, and it shall be lawful on his part,
 - (a) to deduct from the performance securities or to forfeit the said security in whole or in part in the event of:
 - i) any default, or failure or neglect on the part of the contractor in the fulfilment or performance in all respect of the contract under reference or any other contract with the Procuring Organisation or any part thereof
 - ii) for any loss or damage recoverable from the contractor which the Procuring Entity may suffer or be put to for reasons of or due to above defaults/ failures/ neglect
 - (b) and in either of the events aforesaid to call upon the contractor to maintain the said performance security at its original limit by making further deposits, provided further that the Procuring Entity shall be entitled, and it shall be lawful on his part, to recover any such claim from any sum then due or which at any time after that may become due to the contractor for similar reasons.
- 7) Subject to the sub-clause above, the Procuring Entity shall release the performance security without any interest to the contractor on completing all contractual obligations, including the Defect Liability obligations, if any. Alternatively, upon the contractor submitting a suitable separate Defect Liability Security for the duration of Defect Liability obligations, the original Performance Guarantee Security shall be released mutatis mutandis.
- 8) No claim shall lie against the Procuring Entity regarding interest on cash deposits or Government Securities or depreciation thereof.

5.9 Labour Codes and Related Obligations

5.9.1 Independent Contractor

The contractor's status shall be that of an independent contractor and Primary Employer of staff deployed during the contract by him or his sub-contractors or other associates. The contractor, its employees, agents, and subcontractors performing under this Contract are not employees or agents of the Procuring Organisation or Procuring Entity or Central or State Government or their agencies/ Enterprises, simply by Services delivered under this Contract.

5.9.2 Obligations of the contractor under Labour Codes and Rules

- 1)** In cases where Services are to be performed by the contractor at the premises of the Procuring Entity or Beneficiary of Services, the contractor shall comply with the provisions of the Labour Codes including Code on Wages, 2019, The Industrial Relations Code 2020, Code on the Social Security 2020, and The Occupational Safety, Health and Working Conditions 2020, and Draft Rules made thereunder, as modified from time-to-time, wherever applicable and shall also indemnify the Procuring Entity from and against any claims under the aforesaid Labour codes and the Rules.
- 2)** The contractor shall obtain a valid licence under the aforesaid Labour codes and the Rules as modified from time to time before the commencement of the contract and continue to have a valid licence until the completion of the contract. Any failure to fulfil this requirement, the Procuring Entity shall treat it as a breach of contract for default as per the contract and avail any or all remedies thereunder.
- 3)** In respect of all labour directly or indirectly employed in the contract for the performance of the contractor's part of the contract, the contractor shall comply with or cause to comply with the provisions of the aforesaid Labour codes and the Rules wherever applicable. The contractor shall be solely responsible for submitting all the necessary returns under these Codes and the Rules. Nevertheless, the contractor shall submit monthly returns to the Procuring Entity to confirm compliance with such Codes and rules. Failure to do so shall entitle Procuring Entity to take any measure to ensure compliance to such codes and rules by the contractor and his associates, including, but not limited to, withholding contractor's on-account bills.
- 4)** The contractor shall pay the wages as per the Code on Wages to their workers not below the rate of minimum wages, as notified by the State Government or Central Government, whichever is higher, through the bank transfer. The contractor shall, notwithstanding the contract's provisions to the contrary, cause to be paid the wages to labour directly or indirectly engaged on the contract, including any engaged by his Sub-Contractors in connection with the said contract as if he had immediately employed the labour. The Procuring Entity shall, without any commitments or being obliged to do, may its discretion, monitor that such payments are being made. The contractor shall be required to submit, every month, documentary evidence in the form of a Bank Statement of having transferred the gross minimum wages to each worker. Failure to do so shall entail Procuring Entity taking up any measure to ensure the payment of wages including, but not limited to, withholding contractor's on-account bills.
- 5)** In every case in which, by virtue of the provisions of the aforesaid Labour codes and the Rules, the Procuring Entity is obliged to pay any amount of wages to a workman employed by the contractor or his Sub-Contractor in execution of the contract or to incur any expenditure in providing welfare and health amenities required to be provided under the

aforesaid Labour codes and the Rules or to incur any expenditure on account of the contingent liability of the Procuring Entity due to the contractor's failure to fulfill his statutory obligations under the aforesaid Labour codes and the Rules the Procuring Entity shall recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the Procuring Entity under the aforesaid Labour codes and the Rules, the Procuring Entity shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/ or from any sum due by the Procuring Entity to the contractor whether under the contract or otherwise. The Procuring Entity shall not be bound to contest any claim made against it under the aforesaid Labour codes and the Rules except on the contractor's written request, and upon giving the Procuring Entity complete security for all costs, for which the Procuring Entity might become liable in contesting such claim. The decision of the Procuring Entity regarding the amount recoverable from the contractor as stated above shall be final and binding on the contractor.

5.9.3 Occupational Safety, Health, Working Conditions, Social Security, and Industrial Relations Requirements:

As per Labour Codes, which included Code on Wages, 2019, The Industrial Relations Code 2020, Code on the Social Security 2020, and The Occupational Safety, Health and Working Conditions 2020 and rules thereunder, the following provisions shall be ensured by the contractor.

1) Provisions for Workers:

- a) At his own expense, the contractor shall make adequate arrangements for the housing, supply of drinking water, and provision of clean sanitation, including urinals, etc., for his staff and workers, directly or through the petty contractors or sub-contractors.
- b) The contractor shall also provide a temporary creche (Bal-mandir) where 50 or more workers are employed at a time.
- c) Suitable sites on Procuring Entity's land, if available, but without any obligation to do so, may be allotted to the contractor for the erection of labour camps, either free of charge or on such terms and conditions that the Procuring Entity may prescribe.
- d) All camp sites shall be maintained in clean and sanitary conditions by the contractor at his own cost.

2) During the execution of services, unless otherwise stipulated in the contract, the contractor shall at his own cost provide the following materials as is necessary for:

- a) the safety, hygiene, satisfaction, elegance, acceptance, proper handling of assets and shall ensure that no damage, injury, or loss is caused or likely to be caused to any person or assets or hindrance to other works/ services.
- b) environmental requirements to conserve energy, water, wood, paper, and other resources, reduce waste, phase out the use of ozone-depleting substances, and minimise the release of greenhouse gases, volatile organic compounds, and other substances damaging health and the environment.

3) Medical Facilities: the contractor shall provide medical facilities at the site as prescribed by the Contract Manager on the advice of the Procuring Entity's Medical Authority commensurate with the strength of the contractor's resident staff and workers. Such

facilities shall include a First-Aid facility manned with staff trained in first aid as per labour codes or the Contract Manager's directions.

4) Medical Certificate of Fitness for Labour

the contractor shall not employ a person below 18 years of age. For delivery of Services under the contract, unless a medical certificate of fitness in the prescribed form under labour codes (or as directed by the contract manager) is granted to each worker by a certifying surgeon certifying that he is fit to work as an adult, is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with his, while at work, a token giving a reference to such certificate.

- a) Period of Validity of Medical Fitness Certificate: A certificate of fitness granted or renewed for the above-said purposes shall be valid only for one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if, in his opinion, the holder of it is no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.
- b) Medical Re-Examination of Labour: Where any official appointed on this behalf by the Ministry of Labour believes that any person employed in connection with the execution of any work under this Contract in the age group 18 to 65 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the contractor, or the person nominated by him in this regard, a notice requiring that a certifying surgeon and such person shall examine such persons shall not if the concerned official so directs, be employed or permitted to do any work under this Contract unless he has been medically examined and certified that he has been granted a certificate of fitness or a fresh certificate of fitness, as the case may be.

5.9.4 Mandatory Compliance of Government Welfare Schemes

the contractor must ensure and provide documentary evidence for the following and must submit documentary evidence to show the coverage of all his workers or labour under the following schemes at all times during the contract period on an annual basis:

- 1) All the contractor's workers or labour employed directly or indirectly must be enrolled under the Pradhan Mantri Jan Dhan Yojana (PMJDY), a scheme that aims to provide all the citizens of India a bank account, credit facility, insurance cover and debit card.
- 2) All the workers or labour employed directly or indirectly by the contractor between the ages 18-70 years must be enrolled under the Pradhan Mantri Suraksha Bima Yojana (PMSBY), an accident insurance scheme which shall be a one-year cover, renewable from year to year, offering accidental death and disability cover for death or disability on account of an accident. The contractor shall pay the premium per annum per member for all his workers during the contract period.
- 3) All the workers or labour employed directly or indirectly by the contractor between the ages 18-50 years must be enrolled under the Pradhan Mantri Jeevan Jyoti Bima Yojana, an insurance scheme which shall be a one-year cover, renewable from year to year, offering

life insurance cover for death due to any reason. The contractor shall pay the premium per annum per member for all his workers during the contract period.

5.9.5 Contract Labour Records and Management System

A comprehensive record needed for contract labour management and monitoring attendance (Identity Cards, Labour Records, Attendance, Time Sheets, Training Record, acknowledgements of labour Codes) for efficient performance and safeguarding workers' welfare must be maintained by the contractor. It shall be inspected during Site Inspections by the Contract Manager. The contractor shall put this system in place unless otherwise stipulated in the Special Conditions of Contract. If so stipulated in Special Conditions of Contract³, a computerised Contract Labour Management system shall be mandatory.

5.9.6 The obligation of Contractor to ensure awareness of Labour Codes

- 1) the contractor has to mandatorily provide a comprehensive day-long training carried out by a certified Third-Party agency for the awareness of Labour codes and the Rules, grievance redressal mechanism and other provisions applicable to his and his Sub-contractor's staff, workers, labour employed by him directly or indirectly in delivery of service to the Procuring Entity. The contractor must submit relevant documentary proof to Procuring Entity of having conducted such training to all workers.
- 2) The contractor must provide a comprehensive booklet (Procuring Entity approves that) containing all the relevant updated labour codes, rules, and other applicable provisions, to every worker at the outset of the contract in the local vernacular language.
- 3) Procuring Entity, without any commitments or being obliged to do, may its discretion, provide following facilities for Contractor's Contract Labour working on this Contract:
 - a) Helpline for complaints from labour regarding payment of wages, work site facilities, sexual harassment etc
 - b) Provision for recording anonymous complaints from workers, citizens etc., regarding violation of Labour codes and the Rules by Contractor.

5.10 Insurances

- 1) the contractor (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Procuring Entity, insurance against the risks, and for the coverage, as stipulated in the contract or any applicable law including Labour Codes; and at the Procuring Entity's request, shall provide evidence to the Procuring Entity showing that such insurance has been taken out and maintained and that the current premiums have been paid.
- 2) the contractor at his cost shall provide, in the joint names of the Procuring Entity and the contractor, insurance cover from the start date to the date of completion of the contract, in

the amounts and deductibles as per the instructions of the contract manager and the contract for the following events which are due to the contractor's risks:

- a) loss of or damage to Equipment, materials for which advances have been paid;
- b) loss of or damage to property of the Procuring Entity in connection with the contract; and
- c) Personal injury or death.
- d) Penalties and demands by labour regulatory authorities

- 3) Insurance policies and certificates for insurance shall be delivered to the Contract Manager for approval before the Start Date. All such insurance shall provide compensation payable in Indian Rupees to rectify the loss or damage incurred.
- 4) Alterations to the terms of insurance shall not be made without the approval of the Contract Manager.
- 5) Both parties shall comply with any conditions of the insurance policies.

5.11 Permits, Approvals and Licenses

Whenever the delivery of Services and incidental Goods/ Works requires the contractor to obtain permits, approvals, and licenses from local public authorities, it shall be the contractor's sole responsibility to obtain these and keep these current and valid. Such requirements may include but not be restricted to licences or environmental clearance if required. If requested by the contractor, the Procuring Entity shall make its best effort to assist the contractor in complying with such requirements in a timely and expeditious manner, without any dilution of the Contractor's responsibility in this regard.

5.12 Accounting, Inspection and Auditing

the contractor shall keep accurate and systematic accounts and records regarding the provision of the Services under this Contract, as per accounting principles prescribed in India.

5.13 Book Examination Clause

If explicitly invoked in the contract, the Procuring Entity reserves the right for 'Book Examination' as follows:

- 1) the contractor shall, whenever called upon and required to produce or cause to be produced, for examination by any Government Officer duly authorised in that behalf, any cost or other book of account, voucher, receipt, letter, memorandum, paper or writing or any copy of or extract from any such document. The contractor shall also furnish information relating to the execution of this contract or relevant for verifying or ascertaining the cost of execution of this contract to such Government Officer in such manner as may be required. The decision of such Government Officer on the question of relevancy of any document, information of return being final and binding on the parties. The obligation imposed by this clause is without prejudice to the contractor's obligations under any other statute, rules or orders which shall be concurrently binding on the contractor.
- 2) The contractor shall, if the authorised Government Officer so requires (whether before or after the prices have been finally fixed), afford facilities to the Government Officer concerned to visit the contractor's premises to examine the processes of production and

estimate or ascertain the cost of performance of Contract. The authorised Government Officer shall have power, mutatis mutandis, to examine all the relevant books of Contractor's subcontractor, or any subsidiary or allied firm or company, If any portion of the contract is entrusted or carried out by such entities.

- 3) If on such examination, it is established that the contracted price is more than the actual cost-plus reasonable margin of profit, the Procuring Entity shall have the right to reduce the price and determine the amount to a reasonable level.
- 4) The contractor or its agency is bound to allow examination of its books within 60 days from the date the notice is received by the contractor or its agencies calling for the production of documents under sub-clause (1) above. In the event of the contractor's or his agency's failure to do so, the contract price would be reduced and determined according to the best judgment of the Procuring Entity, which would be final and binding on the contractor and his agencies.

6. Procuring Entity's Obligations

6.1 Facilities to be Provided by the Procuring Entity

- 1) No Facilities (including Reference Documents, Medical facilities, Rooms, Furniture, Transport, Access to IT Services etc.) other than those stipulated explicitly in the contract shall be provided or loaned by the Procuring Entity to the contractor for performance of the contract. Whenever such assets are required to be issued to the contractor as per the contract, these would be issued only as per terms and conditions and against appropriate safeguards (including Insurances, Bank Guarantee, Indemnify Bonds, Retention Money etc.) specified therein. The contractor shall use such property for the execution of the contract and no other purpose whatsoever.
- 2) Unless otherwise stipulated in the contract, The Procuring Entity may hire to the contractor non-key Equipment owned and sparable by Procuring Entity for use during execution of the Services on terms and conditions and on the chargeable basis as may be stipulated in the contract or a separate agreement for Hire of such equipment.

6.2 Provision of Utilities at Site by Procuring Entity

Unless otherwise stipulated in the contract, The Procuring Entity may supply without any obligation to do so, to the contractor part or whole of the quantity of the water and electricity required for the delivery of Services from the Procuring Entity's existing water/ electricity supply system at or near the site of Services on specified terms and conditions and on chargeable basis (unless specified otherwise), provided that the contractor shall arrange, at his own expense, to effect the connections and lay additional pipe/ power lines and accessories on the site. Nevertheless, it shall be the responsibility of the contractor to install adequate alternative arrangements to tide over outages in utilities or failure in supply by the Procuring Entity, and that the contractor shall not be entitled to any compensation– nor shall this be a reason for the delay in delivery of Services.

6.3 Custody and Return of the Procuring Entity's Assets loaned to Contractor

- 1) The contractors shall sign accountable receipts for all tools, plants and materials or other assets/ properties made over to him by the Contract Manager. All such assets shall be deemed to be in good condition when received by the contractor unless he has within

twenty-four hours of the receipt thereof notified the Procuring Entity to the contrary. Otherwise, he shall be deemed to have lost the right to do so at any subsequent stage.

- 2) These assets shall remain the property of the Procuring Entity, and the contractor shall take all reasonable care of all such assets. The contractor shall be responsible for all damage or loss from whatever cause caused while assets are possessed or controlled by the contractor, staff, workmen, or agents.
- 3) Where the contractor insures such assets against loss or fire at the request of the Procuring Entity, such insurance shall be deemed to be by way of additional precaution and shall not prejudice the contractor's liability as aforesaid.
- 4) The contractor shall return all such assets in good order and repair, fair wear and tear excepted, before the completion/ closure/ termination of the contract and shall be responsible for any failure to account for the same or any damage done to that as assessed by the Procuring Entity whose decision shall be final and binding.

7. Scope of Services, Performance Standards and Quality Assurance

7.1 Scope of Services

- 1) This contract is for the performance/ delivery of Services of the description, scope/ quantum, performance standards and quality outlined in the contract during the contract Period specified therein. Unless otherwise specified, the Services shall conform to performance and quality standards as stipulated in the contract or as per best standards in the market, where not so specified.
- 2) The contractor shall deliver Services and submit the reports, deliverables, outputs, and documents stipulated in Format 1.1: Description of Services to the Procuring Entity.
- 3) The Services shall include all such work-elements not mentioned explicitly in this Contract, but that can be reasonably inferred from this Contract as being required for attaining Completion of the Services as if such items were expressly mentioned in this Contract.
- 4) **Incidental Works/ Goods:** If so stipulated, the contractor shall be required to perform/ deliver specified incidental Works/ Goods as an integral part of the Services in the contract.

7.2 Performance Standards

- 1) the contractor shall perform the Services as per Format 1.1: Description of Services, and carry out its obligations with all due diligence, efficiency, and economy, observing sound management practices, and employ appropriate advanced technology and safe methods as per the performance standards and quality control parameters as stipulated in the contract. For matters where the contract does not specify any Standard, the Services delivered shall conform to National/ International Standards or generally accepted professional techniques and practices.
- 2) **The shortfall in Performance:** In cases where the performance or/and quality of Services is/are found to be unsatisfactory, Procuring Entity or his representatives shall impose damages for the shortfall in performance as per GCE-clause 10.5 below. This levy of damages shall not absolve the contractor from rectification or performance of the defective Service without further payment.

7.3 Quality Control and Defect Liability

- 1) The Procuring Entity shall check the quality of the Services and shall inspect the contractor's performance according to the relevant section(s) of Format 1.1: Description of Services. The Procuring Entity shall promptly notify the contractor of any identified defects, requesting the correction of the notified defect within a reasonable time.
- 2) If the contractor has not corrected notified defect within the time stipulated in the Procuring Entity's notice, the Procuring Entity shall assess the cost of having the defect corrected. Without prejudice to any of its other remedies under this Contractor applicable law, procuring Entity shall be legally entitled to deduct such cost from the contract's payments, together with the damages for the shortfall in performance (as per clause above), a sum equivalent to the percentage stipulated in the contract.

7.4 Eligible Services - Country of Origin and Minimum Local Content

Unless otherwise stipulated in SCE or Contract, country of origin of 'Services' and related 'Goods' under the contract shall have their origin in India or other countries and must conform to the declaration made by the contractor in its bid regarding but not limited to i) restrictions on certain countries with land-borders with India; ii) minimum local content and location of value addition (Make in India Policy); iii) Contractor's status as MSE or Start-up. The term "origin" used in this clause means the place from where the Services (and incidental Goods, including subcontracted components) are arranged and delivered, or incidental goods are mined, grown, produced, or manufactured. For purposes of this Clause, the term 'Services' shall have the meaning as defined in GCE-clause 1.2.

7.5 Quantity Tolerance

Unless otherwise stipulated in the contract, the obligation for completing Services shall be considered complete if the Services have been performed to the tolerance of plus or minus 5% of the quantum or the total value of Services ordered in the contract. Only the delivered quantity shall be paid for as per the terms of the contract.

7.6 Contract Period and Option Clause

7.6.1 Contract Period

Unless otherwise stipulated in the contract, the contract Period for which the Service shall be provided shall be one year from the effective date of the contract, unless completed earlier or terminated as per the contract.

7.6.2 Option Clause

If stipulated otherwise in the contract, the Procuring Entity shall have the right to exercise the following options, by written notification to the contractor no later than thirty (30) days before Contract end:

- 1) extend the contract Period only once (unless otherwise stipulated in the contract) by four months period (unless otherwise stipulated in the contract).
- 2) increase the ordered quantum of Services up to the percentage specified therein (or 25% if not specified) at any time, till the completion date of the contract, by giving reasonable notice and providing a reasonable extension in delivery period for increased quantum, even

though the quantum ordered initially has been delivered in full before the completion Period.

8. Measurement, Variations and Modifications

8.1 Quantities in Contract

The quantities set out in the contract are the estimated quantities of the Services, and they shall not be taken as the actual and correct quantities of the Services to be executed by the contractor to fulfill his obligations under the contract. Payment shall be made for the actual quantities deployed/ delivered; however, payments shall not be made for quantities over and above those indicated in the contract unless extra quantity has been asked in a written order by the contract manager.

8.2 The admeasurement of Inputs and Services

- 1) Measurements shall be recorded based on the contractor's day-to-day records and authenticated by the Contract Manager or his representatives updated per the agreed Works Programme.
- 2) The contractor shall be paid for the Inputs /Services at the rates in the contract and extra inputs/ Services at rates determined under GCE-clause 8.4 below on the measurements taken by the Contract Manager or his representative. The quantities for items the unit of which in the contract is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and a half and above being taken as one; for items, the unit of which in the contract is single (if not an integral quantity), the quantities shall be calculated to two places of decimals. Such measurements shall be taken of the Services in progress from time to time and at such intervals as in the opinion of the Contract Manager shall be proper regarding the progress of Service. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the contractor who shall be present at the site and shall sign the results of the measurements (which shall also be signed by the Contract Manager or his representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements.
- 3) If the contractor fails to attend, the service may be measured up in his absence, and such measurements shall, notwithstanding such absence, be binding upon the contractor whether or not he has signed the measurement books.
- 4) It shall be open to the contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the Contract Manager or his representative in the contractor's presence or absence after due notice has been given to him shall be final and binding on the contractor. No claim whatsoever shall after that be entertained regarding the accuracy and classification of the measurements. If the Contract Manager finds an objection raised by the contractor to be incorrect, the contractor shall be liable to pay the actual expenses incurred in re-measurements.

8.3 Variations and Claims

8.3.1 Powers of Variations

- 1) the Contract Manager, on behalf of the Procuring Entity, in consultation with the Contractor, order variations in writing to enlarge or extend, diminish, or reduce the Services or make any alterations in their design, inputs, site, quantities, sequence or timing, dimensions or the method of their execution or the combination and use of materials for the execution thereof or to order any additional service to be performed or any Services not to be performed. The contractor shall not be entitled to any compensation for any increase/reduction in the quantities of work but shall be paid only for the actual amount of work done. Such variations shall not be more than plus/ minus 15% of the value of the Contract and must be broadly within the original scope/ character and purpose of the original contract.
- 2) Unless otherwise stipulated, the accepted variation in the quantity of each contract item would be upto 25% of the quantity initially contracted. The contractor shall be bound to carry out the service at the agreed rates and shall not be entitled to any claim or compensation whatsoever upto the limit of 25% variation in the quantity of the individual item of services.
- 3) If the Contract Managers decide to increase the variation beyond 125% of Contracted quantity after internal approvals, the rates and acceptability shall be mutually agreed upon.
- 4) As far as items in Format 1.3: Price Schedule is concerned, the limit of 25% would apply to the value of the contract as a whole and not on individual items.

8.3.2 Valuation of Variations

The variation referred to in sub-clause above shall in no degree affect the validity of the contract; but shall be performed by the contractor as provided therein and be subject to the same conditions, stipulations, and obligations as if they had been initially and expressively included and provided for in the contract and the amounts to be paid therefore shall be calculated as per the Price Schedule. Any extra items/quantities of Services falling outside the purview of the provisions of Price Schedule above shall be paid for at the rates determined under GCE-clause8.4 of these Conditions.

8.4 Rates for Extra Items

- 1) Any extra item of Service carried out by the contractor on the instructions of the Contract Manager which is not included in the Price Schedule shall be executed at the rate agreed upon between the Contract Manager and the contractor before the execution of such items of service.
- 2) The contractors shall be bound to notify the Contract Manager at least seven days before the necessity arises to execute such extra items of Services for which the Price Schedule/ Contract does not include rate or rates.
- 3) The rates payable for such extra items shall be decided at the meeting between the Contract Manager and Contractor, in as short a period as possible after the need for the extra item has come to the notice. In case the contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the Procuring Entity shall be entitled to execute such extra items of Service by other means, and the contractor shall have no claim for loss or damage that may result from such procedure.
- 4) Provided that if the contractor commences such items of Service or incurs any expenditure in this regard before the rates as determined and agreed upon as mentioned above, then and in such a case, the contractor shall only be entitled to be paid in respect of the Services carried out or expenditure incurred by him before the date of determination of

the rates as aforesaid according to the rates as shall be fixed by the Contract Manager. However, if the contractor is not satisfied with the decision of the Contract Manager in this respect, he may appeal to the Head of Procurement within 30 days of getting the decision of the Contract Manager, supported by analysis of the rates claimed. The Head of Procurement's decision after hearing both the parties in the matter would be final and binding on the contractor and the Procuring Entity.

9. Deployment of Resources

9.1 Site and Assets thereon

9.1.1 Site of Service Delivery

- 1) The site for Service delivery shall be the lands, spaces, and other places on, under, in or through which the Services are to be carried out and any other lands or places provided by the Procuring Entity for the contract.
- 2) No land or building or any other asset belonging to or in possession of the Procuring Entity shall be occupied by the contractor without the permission of the Procuring Entity. The contractor shall not use or allow to be used the site for any purposes other than executing or concerning the execution of the services.
- 3) **Facilities for Inspection:** the contractor shall afford the Contract Manager and his representative every facility for entering in and upon every portion of the site at all hours for inspection or otherwise and shall provide all facilities required for the purpose. The Contract Manager and his representative shall have free access to every part of the site and all places at which materials, tools, and plants are stored or prepared for the Services.
- 4) **Existing Roads and Waterways:** Existing roads or water courses shall not be blocked, cut through, altered, diverted, or obstructed in any way by the contractor, except with the permission of the Contract Manager. All compensations claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or water courses by the contractor or his agent or his staff shall be recoverable from the contractor by deduction from any sums which may become due to him in terms of Contract, or otherwise according to law.
- 5) **Non-Obstruction of Access:** During the progress of Services in any street or thoroughfare, the contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or means of lighting which may be interrupted by reasons of the execution of the Services and shall react and maintain at his cost barriers, lights and other safeguards as prescribed by the Contract Manager, for the regulation of the traffic, and provide security staff necessary to prevent accidents.
- 6) **No Obstruction to Flow of Work and Personnel of Procuring Entity:** Contractor shall arrange his work in consultation with the Contract Manager in such a manner to avoid obstruction to the normal flow of work and personnel of the Procuring Entity at the site, preferably utilising non-business hours for such obstructive or hazardous activities.

9.1.2 Temporary Works at Site

- 1) The contractor shall at his own expense erect temporary works, e.g., sheds, yards, and storehouses in such situations, and such numbers as in the opinion of the Procuring

Entity is requisite for performing the Services. The contractor shall keep at each such sheds, yards, and store-houses a sufficient quantity of materials/ plant in stock as not to delay the performance of the Services with due expedition. The Procuring Entity and its representative shall have free access to the said sheds/yards/ store houses at any time to inspect the stock of materials or plant so kept in hand, and any materials or plant which the Procuring Entity may object to shall not be brought upon or used in the services but shall be forthwith removed from the sheds/yards/store houses by the contractor.

9.1.3 Security Arrangements

- 1)** The contractor shall secure security arrangements at the site against un-authorised access/ trespass, pilferage, theft, leakage or misuse of property or belongings of his or his staff or Procuring Entity and its Staff by his staff or third parties or trespassers.
- 2)** **Preservation of Peace**
 - a)** the contractor shall take requisite precautions and use their best endeavours to prevent any riotous or unlawful behaviour by or amongst their workers and others, employed directly or through the petty contractors or sub-contractors for services, and for the preservation of peace and protection of the inhabitants and security of property in the neighbourhood of the site of services.
 - b)** If the Procuring Entity stipulates maintenance of a special Police Force at or in the vicinity of the site during the tenure of service Contract, the expenses thereof shall be borne by the contractor and, if paid by the Procuring Entity, shall be recoverable from the contractor.
- 3) Prohibition of Smoking and Intoxicants:** the contractor or his staff or any labour employed through sub-contractors or petty contractors shall be prohibited from Smoking in 'No Smoking Zone' and in Public Places and also prohibited from the use of any intoxicating substances including, but not limited to, intoxicating beverages during the service period or on-site or near the site or in any of the facilities, sites, buildings, encampments, or tenements owned, occupied by or within the control of the contractor or any of his employees. The contractor shall exercise influence and authority to the utmost extent to secure strict compliance with this condition.

9.1.4 Safety Issues

- 1)** the contractor shall be responsible for the safety of all activities on the Site.
- 2)** The contractor shall be responsible for the safety of all persons employed by him on Site, directly or through petty contractors or Sub-Contractors, and shall report accidents to any of them, however, and wherever occurring on Works, to the contract manager or his representative, and shall make every arrangement to render all possible assistance and to provide prompt and proper medical attention. The compensation for affected Workers or their relatives shall be paid by the contractor in such cases expeditiously as per the Workmen's Compensation Act and other labour codes.
- 3) Safety of Public and Third parties:** the contractor shall be *responsible for taking all precautions to ensure* the safety of the public and third parties, whether on public or Procuring Entity's property and shall post look out, such persons as may, in the opinion of

the Contract Manager, be required to comply with regulations appertaining to the service. No explosives shall be used for the Services rendered or on the site by the contractor.

9.1.5 Clearance of Site on Completion

On completion of the services, the contractor shall clear away and remove all tools /plants and surplus materials, rubbish and temporary works of every kind and leave the whole of the site clean to the satisfaction of the Contract Manager.

- 1) If the contractor provides temporary huts on the Procuring Entity land for labour engaged by him to execute services, the contractor shall arrange for handing over vacant possession of the said land after the service is completed.
- 2) No final payment in settlement of the accounts for the Services shall be paid, held to be due or shall be made to the contractor till, in addition to any other condition necessary for final payment, site clearance shall have been affected by him.
- 3) In the event of failure on the part of the contractor to comply with this provision within 7 days after receiving notice for clearance of Procuring Entity's site and lands, the Contract Manager shall cause them to be removed through public sales of such materials and property or in such a way as deemed fit and convenient and cost as increased by supervision and other incidental charges shall be recovered from the contractor. If the contractor's labour refuses to vacate and has to be ejected following due process by the Procuring Entity, necessary expenses incurred by the Procuring Entity in connection shall be borne by the contractor. The Procuring Entity shall not be held liable for any loss or damage to the contractor's property as may be on the site and due to such removal.

9.2 Key and Non-key Personnel

9.2.1 Key Personnel

- 1) The titles agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the contractor's Key Personnel are described in Format 1.1.1
- 2) Except as the Procuring Entity may otherwise agree, no changes shall be made in the Key Personnel. If it becomes necessary to replace any of the Key Personnel for any reason beyond the contractor's reasonable control, the contractor shall provide as a replacement a person of equivalent or better qualifications, subject to GCE-clause9.2.1.

9.2.2 Non-key Personnel

- 1) the contractor must ensure deployment of non-key Personnel as per the Personnel Deployment Plan in Format 1.1.1 and approved Works Programme as updated. If the Contract Manager believes that the contractor is not employing sufficient staff and workers as is specified or otherwise for the proper execution of the Services, he shall issue a notice to the contractor for remedial measures. The contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour as specified by the Contract Manager immediately, and failure on the part of the contractor to comply with such instructions shall entitle the Procuring Entity to penalize the contractor for the shortfall in performance or terminate the contract as per the contract and avail all the remedies

thereunder. Such action shall be in addition to deduction from Contractor's payment cost of shortfall personnel as per Format 1.1.1.

- 2) The contractor shall also deploy efficient and competent supervisory staff to give the necessary directions to his workers and to see that they provide their services desirably and adequately and shall employ only such supervisors, workers & labour in or about the execution of any of these Services as are careful and skilled in the various trades. Daily attendance records of such supervisors and labour shall be maintained.
- 3) Procuring Entity reserves its right to ask for additional manpower, and the contractor shall be contractually bound to provide such manpower at one week's advance notice – which shall be paid extra at rates quoted.
- 4) **Police Verification of Labour employed by Contractor:** the contractor must submit Police Verification certificates in a format prescribed by the Police Department (or as directed by the Contract Manager) for all contractual staff hired for delivery of Services for Procuring Entity.
- 5) Restrictions on the Employment of Retired Staff or Officers or Managers of Procuring Entity Services within One Year of their Retirement: the contractor shall not, himself be a retired Government Manager of Gazetted rank, or engage any employee or associate who is a retired Government Manager of Gazetted rank, if such persons have not completed one year from the date of retirement, in connection with this Contract in any manner whatsoever without obtaining prior permission of the relevant authority. If the contractor is found to have contravened this provision, it shall constitute a breach of contract and Procuring Entity shall be entitled to terminate the contract and avail any or all the remedies thereunder.
- 6) The contractor shall, when he is not personally present on the site of the workplace, shall keep a responsible agent during working hours who shall, on receiving reasonable notice, present himself to the Contract Manager and orders given by the Contract Manager or his representative to the agent shall be deemed to have the same force as if they had been given to the contractor. Before absenting herself, the contractor shall furnish the name and address of his agent for this clause and failure on the contractor's part to comply with this provision at any time shall entitle the Procuring Entity to terminate the contract and avail any or all the remedies thereunder.

9.2.3 Removal of Personnel on Orders of Contract manager

- 1) If the Procuring Entity finds that any of the Personnel have (i) committed severe misconduct or have been charged with having committed a criminal act, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the contractor shall, at the Procuring Entity's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Procuring Entity, subject to sub-clause 2) below.
- 2) The contractor shall have no claim for additional costs arising out of or incidental to any removal and replacement of Personnel.

9.3 Key and Non-key Equipment, Tools and Plants

- 1) The details of Key Equipment required to be deployed are described in Format 1.1.2.
- 2) Except as the Procuring Entity may otherwise agree, no changes shall be made in the deployment of Key Equipment. If it becomes necessary to replace any of the Key Equipment for any reason beyond the contractor's reasonable control, the contractor shall provide Equipment of equivalent or better performance as a replacement.

- 3) The contractor must ensure deployment of non-key Equipment as per the Equipment Deployment Plan in Format 1.1.2 and approved Works Programme as updated. In the event of the Contract Manager believing that the contractor is not employing on the Services sufficient Equipment/Tools/ Plant as is specified or otherwise for the proper execution of the Services within the prescribed procedure and time, the contractor shall forthwith on receiving intimation to this effect deploy the additional equipment/ tools/ plants as specified by the Contract Manager immediately and failure on the part of the contractor to comply with such instructions shall entitle the Procuring Entity to penalize the contractor under shortfall in performance or terminate the contract as a breach of contract. Such action shall be in addition to a deduction from Contractor's payment cost of shortfall Equipment as per Equipment Deployment Plan in Format 1.1.2.
- 4) the Contract Manager or his representative shall be entitled to order within the time stipulated in the order:
 - a) The removal of any equipment/ tools/ plants which in their opinion are not as per the performance standards.
 - b) The substitution of proper and suitable equipment/ tools/ plants

9.4 Materials Deployment

- 1) Deployment of adequate inventory and supply chain of materials specified and provided in the contractor necessary for the delivery of Services or Personnel and Equipment deployed shall be of specified specification and quality and if not specified as per the best of market and business practices. The materials may be subjected to tests employing such machines, instruments and appliances as the Procuring Officer may direct and wholly at the contractor's expense.
- 2) Except as the Procuring Entity may otherwise agree, no changes shall be made in such materials' deployment, inventory, or supply chain. If for any reason beyond the contractor's reasonable control, it becomes necessary to do so, the contractor shall provide a replacement by materials of equivalent or better quality.
- 3) The contractor must ensure the deployment of materials as per the Materials Deployment Plan in Format 1.1.3 and the approved Works Programme as updated. In the event of the Contract Manager believing that the contractor is not employing on the Services sufficient materials/ inventory as is specified or otherwise for the proper execution of the Services within the prescribed procedure and time, the contractor shall forthwith on receiving intimation to this effect deploy additional materials/ inventory as specified by the Contract Manager immediately and failure on the part of the contractor to comply with such instructions shall entitle the Procuring Entity to penalize the contractor under shortfall in performance or terminate the contract as a breach of contract. Such action shall be in addition to deduction from Contractor's payment cost of shortfall materials as per Materials Deployment Plan in Format 1.1.3.

9.5 Property in Equipment and Materials brought to Site.

The materials and plant brought by the contractor upon the site or on the land occupied by the contractor in connection with the Services and intended to be used for the execution shall not be removed from the site without the approval of the Procuring Entity. However, materials/ equipment

which the Contract Manager rejects under GCE-clause 7.3 during the progress of the Services, or which after the grant of the certificate of completion, are declared as not needed or those that remain unused, can be removed from the site or the said land by the Contractor. This clause shall not in any way diminish the liability of the contractor nor shall the Procuring Entity be in any way answerable for any loss or damage which may happen to or in respect of any such materials or plant either by the same being lost, stolen, damaged, or destroyed by fire, tempest or otherwise.

10. Delivery of Services and delays

10.1 Works Programme

- 1) Before commencement of the Services, the contractor shall submit for approval of the Contract Manager a Works Programme showing the Methods; schedule of delivery of services, the deployment plans for Personnel; Equipment and Materials for the execution of the services. The programme of delivery of Services amended as necessary by discussions with the Contract Manager shall be treated as the agreed Works programme for this Contract. The Services shall be carried out and monitored as per the approved Program as updated.
- 2) Unless otherwise stipulated in the contractor agreed between the parties, the Works Programme shall be based on round-the-clock (24X7) operations without violating statutory regulations.

10.2 Compliance to Contract Manager's Instructions

- 1) the Contract Manager shall direct the order in which the several components of the Services shall be provided, and the contractor shall execute without delay all orders given by the Contract Manager from time to time. Still, the contractor shall not be relieved thereby from responsibility for the due performance of the Services in all respects.
- 2) Any instructions or approval given by the Contract Manager's representative to Contractor in connection with the Services shall bind the contractor as though the Contract Manager had given it provided as follows -
 - a) Failure of the Contract Manager's representative to disapprove any work/ Services or materials shall not prejudice the power of the Contract Manager rafter that to disapprove such Services or material and order the rectification thereof.
 - b) If the contractor is dissatisfied because of any decision of the Contract Manager's representative, he shall be entitled to refer the matter to the Head of Procurement through the Contract Manager, who shall there upon confirm or vary such decision.
- 3) **Compliance with Contractor's Request for Details:** the Contract Manager shall furnish with reasonable promptness, after receipt of the contractor's request, additional instructions regarding procedures, specifications or otherwise, necessary for the proper performance of the Services or any part thereof. All such procedures, specifications and instructions shall be consistent with the contract Documents and reasonably inferable from them.

10.3 Commencement of Services

- 1) **Effective Date of Contract:** Contractor shall commence the Services and shall proceed with due expedition and without delay, from the effective date of Contract (all dates of delivery shall be counted from such a date),which shall be the date mentioned as the effective date in the contract, or if not so mentioned:

- a) 15 days from (unless specified otherwise in that order) the date of an order to this effect from the Contract Manager, or if no such order is issued,
- b) 15 days from the date Contract has been signed by the Procuring Entity.

10.4 Time for Delivery of services and Extensions Thereof

The time and uninterrupted delivery of Services shall be deemed to be the essence of the contract. Subject to any requirement in the contract as to the completion of any portions or portions of the Services before completion of the whole; the contractor shall fully and finally complete the whole of the services comprised in the contract as per the Delivery and Completion Schedule stipulated in Format 1.1: Description of Services. If at any time during the currency of the contract, the contractor encounters conditions hindering the timely performance of services, the contractor shall promptly inform the Procuring Entity in writing about the same and its likely duration. He must make a request to the Procuring Entity for an extension of the delivery schedule. On receiving the contractor's communication, the Procuring Entity shall examine the situation and, at its discretion, may agree to extend the completion schedule, with or without liquidated damages and with and without denial clause by issuing an amendment to the contract in terms of the following clauses.

10.4.1 Extension Due to Modification

The Contract Manager might grant a reasonable extension of the completion date if any modifications ordered materially increase the time for delivery of the services. The contractor shall be responsible for requesting such extension of the date as soon as the cause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the services.

10.4.2 Extension for Delay Not Due to Contractor

- 1) If in the opinion of the contractor, the progress of Services has any time been delayed due to following reasons, then within 15 days of such happening causing delay, he shall give notice thereof in writing to the Contract Manager, but shall nevertheless do due diligence to bring down or make good the delays and to proceed with the services:
 - a) any act or neglect of other contractor employed by the Procuring Entity or in executing the work/service not forming part of the contract but on which Contractor's performance necessarily depends or
 - b) proceeding taken or threatened by or dispute with external third parties arising otherwise than from the contractor's own default etc. or
 - c) any act or neglect of Procuring Entity's employees or
 - d) delay authorized by the Contract Manager pending arbitration or
 - e) the contractor not having received in due time necessary instructions from the Procuring Entity for which he shall have especially applied in writing to the Contract Manager or his authorized representative.
 - f) hand over possession of the site or the necessary facilities/ documents/ data or instructions by the Procuring Entity to the contractor or
 - g) give the necessary notice to commence the services, or
 - h) any other delay caused by the Procuring Entity due to any other cause whatsoever.

2) the contractor may also indicate the period for which the Services is likely to be delayed and ask for a necessary extension of time. On receipt of such request from the contractor, the Contract Manager shall consider the same and grant such extension of time as in his opinion is reasonable regarding the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period. The same rates, terms, and conditions as the original Contract shall apply during the extended period.

10.4.3 Extension of Time for Delay Due to Contractor

- 1) If the contractor fails to deliver the Services within the fixed/ extended period for reasons other than those stipulated in GCE-clause 10.4.1 and 10.4.2 above, the Procuring Entity may, if satisfied that the service delivery can still be completed within a reasonable time, extend the period further.
- 2) On such extension, the Procuring Entity shall be entitled without prejudice to any other right and remedy available on that behalf to recover from the contractor as agreed damages and not by way of penalty Liquidated Damages as per GCE-clause 10.5 below.
- 3) Provided further, that if the Procuring Entity is not satisfied that the service can be completed by the contractor or in the event of failure on the part of the contractor to complete the service within the extension of time allowed further as aforesaid, the Procuring Entity shall be entitled without prejudice to any other right or remedy available in that behalf, treat the delay as a breach of contract and avail any or all the remedies thereunder, whether or not actual damage is caused by such default.
- 4) **Inordinate Delays:** Delays due to the contractor of more than one-fourth (25%) of the total completion period shall be treated as inordinate delays. Such inordinate delays shall be noted as poor performance and be held against the contractor in future tenders. A show-cause notice shall be issued to the contractor before declaring it a poor performance. Such delays may be considered as a breach of the contract at the option of the Procuring Entity.

10.5 Damages and Deductions Thereof

10.5.1 Right of the Procuring Entity to recover Damages.

Procuring Entity shall be entitled to, and it shall be lawful for him to recover damages for the shortfall in performance and Liquidated damages as detailed in this clause from all payments due or any Performance Security or any retention money. This clause does not limit Procuring Entity from imposing more than one damages under the contract, and such damages shall be applied concurrently.

10.5.2 Damages for Shortfall in Performance

The Procuring Entity shall, without prejudice to other rights and remedies under the contract, recover as damages for the shortfall in performance, but not as a penalty, 0.5% percent (or any other percentage prescribed) of the delivered price (including elements of GST & freight) of the defective Services, If the contractor fails to perform the Services as per Performance Standards and Quality, without having to prove actual loss incurred.

10.5.3 Liquidated damages

- 1) Subject to GCE-clause 10.4, if the contractor fails to perform the Services within the time frame(s) incorporated in the contract, the Procuring Entity shall, without prejudice to other rights and remedies available to the Procuring Entity under the contract, deduct from the contract price, as liquidated damages for each week of delay or part thereof until actual delivery or performance, but not as a penalty, a sum equivalent to the 0.125% percent of the contract value for each week of delay. Besides liquidated damages during such a delay, the denial clause as per GCE-clause 10.5.4 shall also apply.
- 2) ~~Any failure or delay by any sub-contractor, though their employment may have been sanctioned, shall not be admitted as a ground for any extension of time or for exempting the contractor from liability for any such loss or damage as aforesaid. DELETED~~

10.5.4 Denial Clause:

- 1) No increases in price on account of any statutory increase in or fresh Imposition of GST, or on account of any other taxes/ duty/ cess/ levy) leviable in respect of the Services and incidental goods/ works stipulated in the said Contract which takes place after the original delivery date shall be admissible on such of the said Services, as are delivered after the said date; and
- 2) Notwithstanding any stipulation in the contract for an increase in price on any other ground, including the price variation clause, no such increase after the original delivery date shall be admissible on such Services delivered after the said date.
- 3) Nevertheless, the Procuring Entity shall be entitled to the benefit of any decrease in price on account of reduction in or remission of GST, or on account of any other Tax or duty or any other ground as stipulated in the price variation clause, which takes place after the expiry of the original delivery date.

10.5.5 Limit on total Damages

However, deduction on account of damages for delays and performance under this clause GCE 10.5, put together shall be subject to a maximum of 10% (or any other percentage if prescribed) of the entire value of Contract of Services. Penalties/ liabilities outside this clause shall be covered by clause GCE 13.1.5.

10.6 Suspension of Services

10.6.1 Suspension Ordered by Contract Manager

the contractor shall, on the order of the Contract Manager, suspend the progress of the Services or any part thereof for such time or times and in such manner as the Contract Manager may consider necessary, and shall during such suspension, adequately protect and secure the site and assets so far as is necessary in the opinion of the Contract Manager. If such suspension is -

- 1) Provided for in the contract, or
- 2) Necessary for the proper execution of the Services or because of extraneous conditions or by some default on the part of the contractor and or
- 3) Necessary for the safety of the Services or any part thereof

10.6.2 Extension of Time and Compensation

the contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the service, but in the event of any suspension ordered by the Contract Manager for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Contract Manager shall extend the time of service for completion of the Services as he may consider proper, having regard to the period or periods of such suspensions and such compensations as the Contract Manager may consider reasonable in respect of expenses incurred by the contractor during the periods of such suspension.

10.6.3 Suspension Lasting More Than 3 Months

If the Contract Manager suspends the Services or any part thereof for more than three months at a time, the contractor may serve a written notice on the Contract Manager requesting permission to proceed with the suspended part(s) of service. If such permission is not granted within 15 days from the receipt thereof, the contractor by further written notice may, treat the suspended part(s) of the service as deleted from the Contract. If the whole of the services has been suspended, he may treat it as a breach of the contract by the Procuring Entity and avail any or all remedies provided in this regard in the contract.

10.7 Force Majeure

- 1) On the occurrence of any unforeseen event, beyond the control of either Party, directly interfering with the delivery of Services arising during the currency of the contract, such as war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, or acts of God, the affected Party shall, within a week from the commencement thereof, notify the same in writing to the other Party with reasonable evidence thereof. Unless otherwise directed by the Procuring Entity in writing, the contractor shall continue to perform its obligations under the contract as far as reasonably practicable and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. If the force majeure condition(s) mentioned above be in force for 90 days or more at any time, either party shall have the option to terminate the contract on expiry of 90 days of commencement of such force majeure by giving 14 days' notice to the other party in writing. In case of such termination, no damages shall be claimed by either party against the other, save and except those which had occurred under any other clause of this Contract before such termination.
- 2) Notwithstanding the remedial provisions contained in GCE-clause 10.5 and 13, none of the Party shall seek any such remedies or damages for the delay and/ or failure of the other Party in fulfilling its obligations under the contract if it is the result of an event of Force Majeure.

11. Prices and Payments

11.1 Prices

11.1.1 Firm Prices

Unless otherwise stipulated in the contract, Prices shall be fixed and firm. If the Price Variation Clause is included, such up and down variations shall also be payable.

11.1.2 Price Variation Clause

- 1) In case the contract provides for a Price Variation Clause or variation on any other account, the price shall be subject to adjustment as per such clauses, only during the original Delivery Period, subject to the following:
 - 2) Any increase due to such variations during the extended delivery period, beyond the original delivery period, shall not be paid by the Procuring Entity; however, it shall be entitled to any reduction during this period under the GCE-clause 10.5 (Denial Clause).
 - 3) Taxes and duties, if any, chargeable and payable on the Services shall be charged on the net price after variations.
 - 4) While claiming payments where such variations are applicable, the contractor must submit its calculations for each invoice, even if the payment on account of these variations is nil. Any price reduction due to such variations must be passed on to the Procuring Entity.
 - 5) **No Other Claim due to Variations:** With the payment of such variations, no additional individual claim shall be admissible on account of fluctuations in market rates, increase in taxes/any other levies/tolls etc.
 - 6) If the Price Variation clause is applicable as per the contract, the price shall be subject to adjustment to take care of the changes in the cost of labour, material, and fuel/ power components as per the price variation formula specified therein. The amount payable on account of Price variation shall be settled every quarter.
 - 7) **Base Month and Quarter:** Unless otherwise stipulated in the contract, the Base Month for 'Price Variation Clause' shall be taken as the month before the month of the last date of bid submission, if any, unless otherwise stated elsewhere. The Base Quarter for applicability of PVC shall end on the Base Month. Unless the contract has stipulated a different time lag for reckoning Price Variation, the month of reckoning the variated price shall be the month before the month in which delivery has been made. The Quarter of reckoning for applicability of PVC shall end on the Month of reckoning. The Price Variation shall be based on the relevant Indices in the Base Quarter and Quarter of reckoning.
 - 8) **Applicability:** If Contract provides for some inputs to be supplied by Procuring Entity free or at a fixed rate, cost of such inputs shall be excluded from the value of the Goods supplied in the relevant quarter for payment/recovery of price variation.

11.2 Taxes and Duties

- 1) the contractor shall be entirely responsible for all taxes, duties, fees, levies etc., incurred until delivery of the Services to the Procuring Entity. Further instruction, if any, shall be as provided in the SCE.
- 2) If applicable under relevant tax laws and rules, the Procuring Entity shall deduct from all payments and deposit required taxes to respective authorities on account of GST Reverse Charge Mechanism; Tax Deducted at Source (TDS), and Tax Collected at Source (TCS) relating to Income Tax, labour cess, royalty etc.
- 3) **Payment of GST Tax under the contract:**
 - (a) The payment of GST and GST Cess to the contractor shall be made only on the latter submitting a GST compliant Bill/ invoice indicating the appropriate HSN code and applicable GST rate thereon duly supported with documentary evidence as per the provision of relevant GST Act and the Rules made there under. The delivery of Services shall be shown being made in the name, location/ state, and GSTIN of the

beneficiary of the Services only, the location of the procurement office of the procuring entity has no bearing on the invoicing.

- (b) While claiming reimbursement of duties, taxes etc. (like GST) from the Procuring Entity, as and if permitted under the contract, the contractor shall also certify that in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the contractor) shall refund to the Procuring Entity, the Procuring Entity's share out of such refund received by the contractor. The contractor shall also refund the appropriate amount to the Procuring Entity immediately after receiving the same from the concerned authorities.
- (c) All necessary adjustment vouchers such as Credit Notes/ Debit Notes for any short/ excess delivery of Services or revision in prices or any other reason under the contract shall be submitted to the Procuring Entity in compliance with GST provisions.
- (d) GST shall be paid as per the rate at which it is liable to be assessed or has been assessed provided the provision of Services is legally liable to such taxes and is payable as per the terms of the contract subject to the following conditions:
 - i) The Procuring Entity shall not pay a higher GST rate if available due to any misclassification of HSN number or incorrect GST rate incorporated in the contract due to contractor's fault. Wherever the contractor invoices the Goods at GST rate or HSN number, which is different from that incorporated in the contract, payment shall be made as per GST rate, which is lower of the GST rates incorporated in the contract or billed.
 - ii) However, the Procuring Entity shall not be responsible for the contractor's tax payment or duty under a misapprehension of the law.
 - iii) Bidder is informed that he shall be required to adjust his basic price to the extent required by a higher tax rate billed as per invoice to match the all-inclusive price mentioned in the contract.
 - iv) In case of profiteering by the contractor relating to GST tax, the contractor shall treat it as a violation of the Code of Integrity in the contract and avail any or all punitive actions thereunder, in addition to recovery and action by the GST authorities under the Act.
- (e) The contractor should issue Receipt vouchers immediately on receipt of all types of payments along with tax invoices after adjusting advance payments, if any, as per Contractual terms and GST Provisions.
- (f) Liquidated damages or any other recoveries should be shown as deductions on the invoice, and GST shall be applicable only on the net balance payment due.

4) **Statutory Variation Clause:** Unless otherwise stated in the contract, statutory increase in applicable GST rate only during the original delivery period shall be to Procuring Entity's account. Any increase in the rates of GST beyond the original completion date during the extended delivery period shall be borne by the contractor. The benefit of any reduction in GST rate must be passed on to the Procuring Entity during the original and extended delivery period. However, GST rate amendments shall be considered for quoted HSN code only, against documentary evidence, provided such an increase of GST rates takes place after the last date of bid submission.

11.3 Terms and Mode of Payment

- 1) Payment schedule/stages have been given in details in **Section V: Special Conditions of Empanelment(SCE)** subjected to acceptance of Services at 'the Site' by the Procuring Entity and the contractor's production of all required documents.
- 2) The payments shall be made in the manner as per Procuring Entity's payment procedures. Unless otherwise stipulated in the contract, payments above ₹ 5,000 (or any other threshold specified) to Contractors shall be made through EFT only. The contractor shall give his consent in a mandate form for receipt of payment through NEFT. In case of non-payment through EFT, or where the EFT facility is not available, payment may be released through cheque.
- 3) In Domestic Contracts, payments shall only be made in Indian Rupees. In Global Tenders, payment to foreign bidders shall be made in the currency/ currencies authorized in the contract. However, agency commission and local value addition shall be paid only in Indian Rupees.
- 4) the contractor shall send its claim for payment in writing as per GST compliant Invoice and documents, when contractually due, along with relevant documents etc., as stipulated in Contract and a manner as also specified therein.
- 5) While claiming payment, the contractor is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the contractor for claiming that payment has been fulfilled as required under the contract.

11.4 Withholding and lien in respect of sums claimed:

- 1) Whenever any claim or claims for payment of a sum of money arises against the contractor, out of or under the contract, the Procuring Entity shall be entitled, and it shall be lawful on his part, to withhold and also have a lien to retain such sum or sums, in whole or in part pending finalisation or adjudication of any such claim from -
 - a) any security or retention money, if any, deposited by the contractor.
 - b) any sum(s) payable till now or hereafter to the contractor under the same Contract or any other contract with the Procuring Entity if the security is insufficient or if no security has been taken from the contractor.
- 2) Where the contractor is a partnership firm or a limited company, the Procuring Entity shall be entitled, and it shall be lawful on his part, to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/ limited company, as the case may be, whether in his capacity or otherwise.
- 3) It is an agreed term of the contract that the sum(s) of money so withheld or retained under the lien referred above shall be kept withheld or retained till the claim arising out of or under the contract is determined under clause GCE 12 and/ or 13. The contractor shall have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the contractor.
- 4) **Lien in respect of Claims in other Contracts:** Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Procuring Entity or Government against any claim of the Procuring Entity or Government in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Procuring Entity or Government.

11.5 Payments to Contractor

- 1) **Time-Based (Inputs admeasurement):** Unless instructed in writing by the Procuring entity, payments shall not be made for any extra inputs deployed over and above the Input Deployment Plans (Personnel, equipment, materials etc.) mentioned in the contract. Nevertheless, if such inputs are deployed less than those stipulated, deductions shall be made based on the rates indicated for the inputs (Personnel, equipment, materials etc.) in the contract.
- 2) **UNIE-Rate (Output admeasurements):** Unless otherwise stipulated, payments shall be made every month for the volume of Services rendered during the period.
- 3) **Lumpsum:** Unless otherwise stipulated, payments shall be made only on completion of Services.
- 4) **Percentage (of Value of Transactions):** The payment for the total price of Services calculated at the percentage of the actual value of Activities rendered shall be made either every month or on completion of milestones or on completion of entire Services whichever is stipulated in the contract.

11.5.1 "On-Account" Payments

The contractor shall be entitled to be paid every month (unless otherwise stipulated in the contract) by way of "On-Account" payment, only for such Services, as in the opinion of the Contract Manager, the contractor has executed in terms of the contract during the month. All payments due against the Contract Manager or his representative's certificates of measurements shall be subject to any deductions, which may be made under the contract, always provided that the Contract Manager may by any certificate make any correction or modification in any previous certificate, which he may have issued. The Contract Manager may withhold any certificate if the Services or any part thereof are not being carried out as per the contractual performance standards.

11.5.2 On Account Payments Not Prejudicial to Final Settlement

"On-Account" payments made to the contractor shall be without any prejudice to the final settlement of the accounts (except where measurements are noted explicitly in the Measurement Book as "Final Measurements" and the contractor has signed it such). They shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of service having been executed nor of the manner of its execution being satisfactory.

11.5.3 Claims for Variations

the contractor shall prepare and furnish to the Contract Manager once in every month an account giving complete and detailed particulars of all claims for any additional expenses to which the contractor may consider himself entitled to and of all extra or additional works ordered by the Contract Manager which he has executed during the preceding month and no claim for payment for and such work shall be considered which has not been included in such particulars.

11.5.4 Advance Payments

- 1) Unless the contract provides explicitly for Advance Payments to be made to the contractor in SCE, the following procedure shall apply:

- a) On the request of the contractor, the Procuring Entity shall make the following advance payment (subject to a maximum of 10% (ten percent) of the initial contract price) to the contractor against submission by the contractor of an Unconditional Bank Guarantee from a Commercial bank acceptable to the Procuring Entity in amounts equal to 110% (one hundred ten percent) of the amount of the advance payment being requested. Advance payments shall be released in not less than two installments, commensurate with the progress of work and mobilization of required equipment etc.:
 - i) Mobilization advances up to 5% (five percent) of the initial contract price.
 - ii) Equipment Advance up to 90 % (ninety percent) of the cost of the new equipment brought to the site,
- 2) The Bank Guarantee shall remain effective until the advance payment has been repaid, but the amounts repaid by the contractor shall progressively reduce the guaranteed amount. Interest shall not be charged on the advance payment. However, if the contract is terminated due to the contractor's default, the Mobilization Advance and the Equipment Advance shall be deemed an interest-bearing advance at the prevailing rate (MIBID - Mumbai Interbank Bid Rate) on the date of such advance payment.
- 3) The contractor is to use the advance payment only to pay for Equipment, plant and Mobilization expenses explicitly required for the performance of Services. The contractor shall demonstrate that the advance payment has been used in this way by Utilization certificate enclosing copies of invoices or other documents to the Contract Manager. Further installments shall be released after getting a satisfactory utilization certificate from the contractor for the earlier installment. In case of Equipment advance, insurance and hypothecation to the Procuring Entity must be ensured by the Contractor.
- 4) The advance payment shall be recovered in a time-based manner not linked with the progress of work by deducting proportionate amounts from payments otherwise due to the contractor for the Services performed. Any delayed recoveries due to late submission of bills by the contractor shall attract interest at the prevailing rate (MIBID - Mumbai Interbank Bid Rate). No account shall be taken of the advance payment or repayment in assessing valuations of Services performed, variations, price adjustments, or liquidated damages.

11.5.5 Preconditions for Passing the Bills

- 1) The Contract Manager shall ensure and cross-check with all relevant records before passing the bills of the contractor. Upon verification of the records by Procuring Entity, payments can be released to the contractor.
- 2) The contractor shall ensure that Minimum gross wages, including ESI, EPF etc., is paid as per the actuals by the contractor to all workers, and portions to be deposited with the relevant authorities has also been deposited by him. If the contractor fails to pay the gross minimum wages, the same shall be informed to the Regional Labour Commissioner.
- 3) The Contract Manager shall ensure that the contractor submits all the relevant records related to statutory obligations and agreement conditions for claiming monthly bills.
 - 4) Procuring Entity shall upload the details of the contractor online on the Employees' Provident Fund Organisation (EPFO) portal. Every month, Procuring Entity may, if required, cross-verify the contractor's monthly statements regarding EPF and other contributions from the EPFO's records online. The contractor must provide documentary evidence to

show coverage of all his workers or labour under the schemes mentioned in GCE-clause9.1.4annually.

11.6 Completion Certificate and Final payment

11.6.1 Completion Certificate

Upon a written intimation from the contractor, the Contract Manager shall issue a certificate of completion duly indicating the date of completion after satisfying himself of the following. The Contract Manager may also issue such a certificate indicating the date of completion concerning any part of the service (before the completion of the whole of service), which has been completed to the satisfaction of the Contract Manager:

- 1)** that the whole of the Services to be done under the provisions of the contracts have been completed or when any such certificate is given in respect of part of a service, such part shall be considered completed.
- 2)** that they have been inspected by him since their completion and found to be in good and substantial order,
- 3)** that such completed services have satisfactorily passed any final test or tests that may be prescribed,
- 4)** that all properties, works and things, removed, disturbed, or damaged in consequence of the Services have been adequately replaced and
- 5)** that the contractor has returned in good condition, all assets loaned or hired from the Procuring Entity and has given a satisfactory account of payments made to or retained by the Procuring Entity for such loaned/ hired assets,
- 6)** that the contractor has made good and satisfied in conformity with the contract all expenses and demands:
 - a)** incurred by or made upon by the Procuring Entity.
 - b)** for or in respect of damages or losses from or in consequence of the services.

11.6.2 Approval Only by Completion Certificate:

No certificate other than completion certificate referred to in sub-clause above shall be deemed to constitute approval of any service or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contractor any part thereof or of the accuracy of any claim or demand made by the contractor or of additional varied Services having been ordered by the Contract Manager nor shall any other certificate conclude or prejudice any of the powers of the Contract Manager.

11.6.3 Cessation of Procuring Entity's Liability

After the issue of Completion Certificate, the Procuring Entity shall not be liable to the contractor for any matter arising out of or in connection with the contract for the delivery of the Services, unless the contractor shall have claimed in writing in respect thereof before the issue of the Completion Certificate for service in Contract.

11.6.4 Unfulfilled Obligations

Notwithstanding the issue of Completion Certificate for service, the contractor and the Procuring Entity shall remain liable for the fulfilment of any obligation incurred under the provision of the

contract before the issue of the Completion Certificate for service, which remains unperformed at the time such certificate is issued. The contract shall be deemed to remain in force till the nature and extent of any such obligations are determined.

11.6.5 Final Payment

The contractor shall submit a Final bill on the Contract Manager's certificate of completion regarding the services. The Final payment shall be made as per the following calculations to the contractor after receiving a clear "No Claim Certificate" signed from him:

- 1) the total quantity of service executed by the contractor upto the completion date based on the Contract Manager or his representative's certified measurements.
- 2) priced at the rates in the Price Schedule in the contract and for extra works on rates determined under GCE-clause8.4 of these Conditions.
- 3) necessary adjustment for any payments already made or retained
- 4) any deduction which may be made under the contract,
- 5) a complete account of all claims Contractor may have on the Procuring Entity, and the Contract Manager gave a certificate in writing that such claims are correct,

11.6.6 No Claim Certificate and Release of Contract Securities

The contractor shall submit a 'No-claim certificate' to the Procuring Entity in such form as shall be required by the Procuring Entity after the Services are finally admeasured and before the final payment/ performance securities are released. The Procuring Entity shall release the contractual securities without any interest if no outstanding obligation, asset, or payments are due from the contractor. The contractor shall not be entitled to make any claim whatsoever against the Procuring Entity under or arising out of this Contract, nor shall the Procuring Entity entertain or consider any such claim, if made by the contractor, after he shall have signed a "No Claim" Certificate in favour of the Procuring Entity. The Contactor shall be debarred from disputing the correctness of the items covered by the "No Claim" Certificate ~~or demanding a clearance to arbitration in respect thereof.~~

11.6.7 Post Payment Audit

Notwithstanding the issue of Completion Certificate and release of final Payment, the Procuring Entity reserves the right to carry out within 180 days (unless otherwise stipulated in the contract) of such completion/ final payment, a post-payment audit and/ or technical examination of the Services and the final bill including all supporting vouchers, abstracts etc. If any over-payment to the contractor is discovered due to such examination, the Procuring Entity shall claim such amount from the contractor.

11.6.8 Signature on Receipts for Amounts

Every receipt for money, which may become payable, or for any security which may become transferable to the contractors, under the contract, shall if signed in the partnership name by any one of the partners of a Contractor's firm, be a suitable and sufficient discharge to the Procuring Entity in respect of the sums of money or security purported to be acknowledged thereby. In the event of death of any contractor, partners during the pendency of the contract, every receipt by anyone of the surviving constituents shall be suitable and sufficient discharge as aforesaid.

Nothing in this Clause shall be deemed to prejudice or effect any claim that the Procuring Entity may hereafter have against the legal representative regarding any breach of any contract conditions by any contractor partner/member so dying. Nothing in this clause shall be deemed to prejudice or effect the respective rights or obligations of the contractor partners/ members and the legal representatives of any deceased Contractor partners/ members.

11.7 Defects Liability Period

- 1)** the contractor warrants that the Services have been delivered as per description, scope/ quantum, performance standards and quality outlined in the contract. This Defect Liability shall be in effect for a period stipulated in the contract (or if not specified for ninety (90) days) from completing the Services. The contract shall be deemed alive during this period, even if final payment and/ or Performance Guarantee has been released.
- 2)** During the Defects Liability Period, upon discovering any deficiencies in outputs/ outcomes attributable to a shortfall in scope/ quantum, performance standards and quality of the performed Services, the Procuring Entity shall give written notice to the contractor.
- 3)** Upon receiving such notice, the contractor shall, within 21 days (or within any other period, if stipulated in the contract), expeditiously remedy or re-perform the Services or parts thereof, free of cost, at the site.
- 4)** If the contractor, having been notified, fails to rectify/ replace the defect(s) within 21 days (or within any other period, if stipulated in the contract), it shall amount to breach of Contract, and the Procuring Entity shall proceed to take such remedial action(s) as deemed fit by it as detailed.

11.8 Payment Against Time-Barred Claims

All claims against the Procuring Entity shall be legally time-barred after three years calculated from the date when the payment falls due unless the payment claim has been under correspondence. The Procuring Entity is entitled to, and it shall be lawful for it to reject such claims.

11.9 Commissions and Fees

The Service Provider shall disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents concerning the selection process or execution and performance of this Contract. The information disclosed must include the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee in a format similar to Form 1.3 of the Tender Document.

12. Resolution of Disputes

12.1 Disputes and Excepted Matters

All disputes and differences between the parties hereto, as to the construction or operation of this Contract, or the respective rights and liabilities of the parties on any matter in question; or any other account whatsoever, but excluding the Excepted Matters (detailed below); arising out of or in connection with the contract, within thirty (30) days from aggrieved Party notifying the other Party of such matters; whether before or after the completion/ termination of the contract, that cannot be resolved amicably between the Contract Manager and the contractor, shall be hereinafter called the "Dispute". The aggrieved party shall give a 'Notice of Dispute' indicating the Dispute and claims citing relevant Contractual clause to the designated authority requesting for invoking the following dispute resolution mechanism. The Dispute shall be resolved without recourse to courts through

dispute resolution mechanisms detailed subsequently, in the sequence as mentioned below, and the next mechanism shall not be invoked unless the earlier mechanism has been invoked or has failed to resolve it within the deadline mentioned therein.

- 1) Adjudication
- 2) Conciliation
- 3) Arbitration ~~DELETED~~

12.2 Excepted Matters

Matters for which provision has been made in any Clause of the contract shall be deemed as 'excepted matters' (matters not disputable/ arbitrable), and decisions of the Procuring Entity, thereon shall be final and binding on the contractor. The 'excepted matters' shall stand expressly excluded from the purview of the sub-clauses below, ~~including Arbitration~~. However, where the Procuring Entity has raised the dispute, this sub-clause shall not apply. Unless otherwise stipulated in the contract, excepted matters shall include but not limited to:

- 1) any controversies or claims brought by a third party for bodily injury, death, property damage or any indirect or consequential loss arising out of or in any way related to the performance of this Contract ("Third Party Claim"), including, but not limited to, a Party's right to seek contribution or indemnify from the other Party in respect of a Third-Party Claim.
- 2) Issues related to the pre-award tender process or conditions
- 3) Issues related to ambiguity in Contract terms shall not be taken up after a Contract has been signed. All such issues should be highlighted before the signing of the contract by the contractor.
- 4) Provisions incorporated in the contract, which are beyond the purview of The Procurement Entity or are in pursuance of policies of Government, including but not limited to
 - a) Provisions of restrictions regarding local content and Purchase Preference to Local suppliers in terms of Make in India policy of the Government
 - b) Provisions regarding restrictions on Entities from Countries having land borders with India in terms of the Government's policies in this regard
 - c) Purchase preference policies regarding MSEs and Start-ups

12.3 Adjudication

After exhausting efforts to resolve the Dispute with the Contract Manager executing the contract on behalf of the Procuring Entity, the contractor shall give a 'Notice of Adjudication' specifying the matters which are in question, or subject of the dispute or difference indicating the relevant contractual clause, as also the amount of claim item-wise to Procurement or any other authority mentioned in the contract(hereinafter called the "Adjudicator") for invoking resolution of the dispute through Adjudication. During his adjudication, the Adjudicator shall give adequate opportunity to the contractor to present his case. Within 60 days after receiving the representation, the Adjudicator shall make and notify decisions in writing on all matters referred to him. The parties shall not initiate, during the adjudication proceedings, any conciliation or arbitral or judicial proceedings in respect of a dispute that is the subject matter of the adjudication proceedings. If not satisfied by the decision in adjudication, or if the adjudicator fails to notify his decision within the

abovementioned time-frame, the contractor may proceed to invoke the process of Conciliation as follows.

12.4 Conciliation of disputes

- 1) Any party may invoke Conciliation by submitting “Notice of Conciliation” to the Head of the Procuring Organisation. Since conciliation is a voluntary process, within 30 days of receipt of “Notice of Conciliation”, the Head of the Procuring Organisation shall notify a sole Conciliator if the other party is agreeable to enter Conciliation.
- 2) The Conciliator shall proactively assist the parties to reach an amicable settlement independently and impartially within the terms of Contract, within 60 days from the date of appointment of Conciliator.
- 3) If the parties reach an agreement on a dispute settlement, they shall draw up a written settlement agreement duly signed by the parties and conciliator. When the parties sign the settlement agreement, it shall be final and binding on the parties. The dispute shall be treated as resolved on the date of such agreement.
- 4) The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.
- 5) Termination of Conciliation: Disputes shall remain alive if the conciliation is terminated as follows:
 - a) By written declaration of the conciliator, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of such declaration; or
 - b) By a written declaration of any party to the conciliator to the effect that the conciliation proceedings are terminated, on the date of such declaration; or
 - c) If the parties fail to reach an agreement on a settlement of the dispute, within 60 days of the appointment of Conciliator

13. Defaults, Breaches, Termination, and closure of Contract

13.1 Termination due to Breach, Default, and Insolvency

13.1.1 Defaults and Breach of Contract

In case the contractor undergoes insolvency or receivership; neglects or defaults, or expresses inability or disinclination to honour his obligations relating to the performance of the contract or ethical standards or any other obligation that substantively affects the Procuring Entity's rights and benefits under the contract, it shall be treated as a breach of Contract. Such defaults could include inter-alia:

- 1) **Default in Performance and Obligations:** if the contractor fails to deliver any or all of the Services or fails to perform any other contractual obligations (including Code of Integrity or obligation to maintain eligibility and Qualifications based on which contract was awarded) within the period stipulated in the contract or within any extension thereof granted by the Procuring Entity.
- 2) **Insolvency:** If the contractor being an individual or if a firm, any partner thereof, shall at any time, be adjudged insolvent or shall have a receiving order or order for the administration of his estate made against him or shall take any proceeding for composition

under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any assignment or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act, or

- 3) **Liquidation:** if the contractor is a company being wound up voluntarily, or by order of a Court or a Receiver, Liquidator or Manager on behalf of the Debenture-holders is appointed, or circumstances shall have arisen which entitle the Court or Debenture-holders to appoint a Receiver, Liquidator or Manager

13.1.2 Notice for Default:

As soon as a breach of contract is noticed, a show-cause 'Notice of Default' shall be issued to the contractor, giving two weeks' notice, reserving the right to invoke contractual remedies. After such a show-cause notice, all payments to the contractor would be temporarily withheld to safeguard needed recoveries that may become due on invoking contractual remedies.

13.1.3 Terminations for Default

- 1) **Notice for Termination for Default:** In the event of unsatisfactory resolution of 'Notice of Default' within two weeks of its issue as per sub-clause above, the Procuring Entity, if so decided, shall by written Notice of Termination for Default sent to the contractor, terminate the contract in whole or in part, without compensation to the contractor.
- 2) Such termination shall not prejudice or affect the rights and remedies, including under sub-clause below, which have accrued and/ or shall accrue to the Procuring Entity after that.
- 3) Unless otherwise instructed by the Procuring Entity, the contractor shall continue to perform the contract to the extent not terminated.
- 4) All Defect Liability obligations, if any, shall continue to survive despite the termination.

13.1.4 Contractual Remedies for Breaches/ Defaults or Termination for Default

If there is an unsatisfactory resolution within this period, the Procuring Entity shall take one; or more of the following contractual remedies.

- 1) Temporary withhold payments due to the contractor till recoveries due to invocation of other contractual remedies are complete.
- 2) Call back any loaned property or advances of payment, if any, with a levy of interest at the prevailing rate(MIBID - Mumbai Interbank Bid Rate).
- 3) Recover liquidated damages and invoke denial clause for delays.
- 4) Encash and/ or Forfeit performance or other contractual securities.
- 5) Prefer claims against insurances, if any.
- 6) Terminate Contract for default, fully or partially including its right for Risk-and-Cost Procurement as per following sub-clause.
- 7) **Risk and Cost Procurement:** In addition to termination for default, the Procuring Entity shall be entitled, and it shall be lawful on his part, to procure Services similar to those terminated, with such terms and conditions and in such manner as it deems fit at the "Risk and Cost" of the contractor. Such Risk and Cost Procurement must be contracted within six months from the breach of Contract. The contractor shall be liable for any loss which the Procuring Entity may sustain on that account provided the procurement, or, if there is an agreement to procure, such agreement is made. The contractor shall not be entitled to any

gain on such procurement, and the manner and method of such procurement shall be in the entire discretion of the Procuring Entity. It shall not be necessary for the Procuring Entity to notify the contractor of such procurement. It shall, however, be at the discretion of the Procuring Entity to collect or not the security deposit from the firm/ firms on whom the contract is placed at the risk and cost of the defaulted firm.

Note: Regarding the Services that are not readily available in the market and where procurement difficulties are experienced, the period for making risk procurement shall be nine months instead of six months provided above.

- 8) Initiated proceedings in a court of law for the transgression of a law, tort, and loss, not addressable by the above means.

13.1.5 Limitation of Liability

Except in cases of criminal negligence or willful misconduct, the aggregate liability of the contractor to the Procuring Entity, whether under the contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the contractor to indemnify the Procuring Entity concerning IPR infringement.

13.2 Termination for Default/ Convenience of Procuring Entity and Frustration

13.2.1 Notice for Determination of Contract

- 1) The Procuring Entity reserves the right to terminate the contract, in whole or in part for its (the Procuring Entity's) convenience or frustration of Contract as per sub-clause below, by serving written 'Notice for Determination of Contract' on the contractor at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Procuring Entity or the frustration of the contract. The notice shall also indicate inter-alia, the extent to which the contractor's performance under the contract is terminated, and the date with effect from which such termination shall become effective.
- 2) Such termination shall not prejudice or affect the rights and remedies accrued and/ or shall accrue after that to the Parties.
- 3) Unless otherwise instructed by the Procuring Entity, the contractor shall continue to perform the contract to the extent not terminated.
- 4) All Defect Liability obligations, if any, shall continue to survive despite the termination.
- 5) The Services and incidental goods/ works that can be delivered or performed within thirty days after the contractor's receipt of the notice of termination shall be accepted by the Procuring Entity as per the contract terms. For the remaining Services and incidental goods/ works, the Procuring Entity may decide:
 - a) To get any portion of the balance completed and delivered at the contract terms, conditions, and prices; and/ or
 - b) To cancel the remaining portion of the Services and incidental goods/ works and compensate the contractor by paying an agreed amount for the cost incurred by the contractor, if any, towards the remaining portion of the Services and incidental goods/ works.

13.2.2 Frustration of Contract

- 1) **Notice of Frustration Event:** Upon a supervening cause occurring after the effective date of the contract, including a change in law, beyond the control of either party whether as a result of the Force Majeure clause or within the scope of section 56 of the Indian Contract Act, 1872, that makes it impossible to perform the contract within a reasonable timeframe, the affected party shall give a 'Notice of Frustration Event' to the other party giving justification. The parties shall use reasonable efforts to agree to amend the contract, as may be necessary to complete its performance. However, if the parties cannot reach a mutual agreement within 60 days of the initial notice, the Procuring Entity shall issue a 'Notice for Determining the contract' and terminate the contract due to its frustration as in the sub-clause above.
- 2) However, the following shall not be considered as such a supervening cause
 - a) Lack of commercial feasibility or viability or profitability or availability of funds
 - b) if caused by either party's breach of its obligations under this Contract or failure to act in good faith or use commercially reasonable due diligence to prevent such an event.

13.3 Closure of Contract

The contract shall stand closed upon

- 1) successful performance of all obligations by both parties, including completion of Defect Liability obligations and final payment.
- 2) termination and settlements after that, if any, as per clause 13.1 or 13.2 above.

14. Code of Integrity in Public Procurement; Misdemeanours and Penalties

14.1 Code of Integrity

Procuring authorities as well as bidders, suppliers, contractors, and consultants - should observe the highest standard of ethics and should not indulge in following prohibited practices, either directly or indirectly, at any stage during the Tender Process or during the execution of resultant contracts:

- 1) **"Corrupt practice"** - making offer, solicitation or acceptance of a bribe, reward or gift or any material benefit, in exchange for an unfair advantage in the Tender Process or to otherwise influence the Tender Process;
- 2) **"Fraudulent practice"** - any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. Such practices include a false declaration or false information, for participation in a tender process or to secure a Contract, or in the execution of the contract;
- 3) **"Anti-competitive practice"** - any collusion, bid-rigging or anti-competitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the Procuring Entity, that may impair the transparency, fairness, and the progress of the Tender Process or to establish bid prices at artificial, non-competitive levels;
- 4) **"Coercive practice"** - harming or threatening to harm persons or their property to influence their participation in the Tender Process or affect the execution of a contract;
- 5) **"Conflict of interest"** – participation by a bidding firm or any of its affiliates who are either involved in the Consultancy Contract to which this procurement is linked; or if they are part

of more than one bid in the procurement; or if their personnel have a relationship or financial or business transactions with any official of procuring entity who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) bidder from the Procuring Entity with an intent to gain unfair advantage in the Tender Process or for personal gain;

6) **“Obstructive practice”** - materially impede procuring entity’s investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/ or by coercive practices mentioned above, to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the Procuring Entity’s rights of audit or access to information;

14.2 Obligations for Proactive Disclosures:

- 1) Procuring authorities, bidders, suppliers, contractors, and consultants are obliged under this Code of Integrity to *suo-moto* proactively declare any conflict of interest (coming under the definition mentioned above - pre-existing or as and as soon as these arise at any stage) in any Tender Process or execution of the contract. Failure to do so shall amount to a violation of this code of integrity.
 - 2) Any bidder must declare, whether asked or not in a bid-document, any previous transgressions of such code of integrity during the last three years or of being under any category of debarment by the Central Government or by the Ministry/ Department of the Procuring Organisation from participation in Tender Processes. Failure to do so shall amount to a violation of this code of integrity.

14.3 Misdemeanours

The following shall be considered misdemeanours - if a bidder/ contractor either directly or indirectly, at any stage during the Tender Process or during the execution of resultant contracts:

- 1) violates the code of Integrity mentioned in GCE-clause 14.1 or the Integrity Pact (if included in the Tender/ Contract);
- 2) has been convicted of an offence:
 - a) under the Prevention of Corruption Act, 1988; or
 - b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of the execution of a public procurement contract.
- 3) It is determined by the Government of India to have doubtful loyalty to the country or national security consideration.
- 4) Employs a government servant, who has been dismissed or removed on account of corruption or employs a non-official convicted for an offence involving corruption or abetment of such an offence, in a position where he could corrupt government servants or employs a government officer within one year of his retirement, who has had business dealings with him in an official capacity before retirement; or

14.4 Penalties for Misdemeanours

Without prejudice to and in addition to the rights of the Procuring Entity to other remedies as per the Tender-documents or the contract, If the Procuring Entity concludes that a (prospective) bidder/ contractor directly or through an agent has violated this code of integrity or committed a misdemeanour in competing for the tender or in executing a contract, the Procuring Entity shall be entitled. It shall be lawful on his part to take appropriate measures, including the following:

14.4.1 if his bids are under consideration in any procurement

- 1) Enforcement of Bid Securing Declaration in lieu of forfeiture or encashment of Bid Security.
- 2) calling off of any pre-contract negotiations, and;
- 3) rejection and exclusion of Bidder from the Tender Process

14.4.2 if a contract has already been awarded

- 1) Termination of Contract for Default and availing all remedies prescribed thereunder;
- 2) Encashment and/ or Forfeiture of any contractual security or bond relating to the procurement;
- 3) Recovery of payments including advance payments, if any, made by the Procuring Entity along with interest thereon at the prevailing rate (MIBID - Mumbai Interbank Bid Rate);

14.4.3 Remedies in addition to the above:

In addition to the above penalties, the Procuring Entity shall be entitled, and it shall be lawful on his part to:

- 1) File information against Bidder or any of its successors, with the Competition Commission of India for further processing, in case of anti-competitive practices;
- 2) initiate proceedings in a court of law against Bidder or any of its successors, under the Prevention of Corruption Act, 1988 or the Indian Penal Code or any other law for transgression not addressable by other remedies listed in this sub-clause.
- 3) Remove Bidder or any of its successors from the list of registered suppliers for a period not exceeding two years. Suppliers removed from the list of registered vendors or their related entities may be allowed to apply afresh for registration after the expiry of the period of removal.
- 4) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.
- 5) Debar a bidder/ contractor from participation in future procurements as follows:
 - a) A Ministry/ Department may debar a bidder or any of its successors from participating in any Tender Process undertaken by all its procuring entities for a period not exceeding two years commencing from the date of debarment for misdemeanours listed in sub-clause GCE 14.3 -1) above. The Ministry/Department shall maintain such a list which shall also be displayed on their website.
 - b) Central Government may debar a bidder or any of its successors from participating in any Tender Process undertaken by all its procuring entities for a period not exceeding three years commencing from the date of debarment for misdemeanours listed in sub-clause GCE 14.3 - 2) or3) above. Central Public Procurement Portal (CPPP) shall publish a list of such centrally debarred bidders.

Section V: Special Conditions of Empanelment (SCE)

1.1 Section V: Special Conditions of Empanelment(SCE)

Document No. S-1192/752025/8/2025 dated 07-07-2025

1.1.1 Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

(Ref ITB-clause 9.2)

Note for Bidders: These Special Conditions shall **modify, substitute, or supplement** the corresponding **General Conditions of Empanelment(GCE)** clauses. In case of any conflict, the provision in the **SCE shall prevail**.

SCE Clause 1.1.A – Clarification to GCE Clause 1.1 (Definitions): Inclusion of “Class”

Class (Empanelment Class): Refers to the classification of applicant firms based on their average annual turnover over the last three financial years, as defined below:

- Class C: ₹2.5 Cr to ₹5 Cr
- Class B: >₹5 Cr to ₹10 Cr
- Class A: >₹10 Cr to ₹50 Cr
- Class A+: >₹50 Cr

Each Class shall be associated with differentiated technical qualification thresholds relating to:

- Past experience (project size and count)
- Equipment and infrastructure
- Key technical personnel

Firms must apply under the Class for which they are eligible based on submitted financial and technical documentation. Empanelment class may be subject to upgradation or degradation during six-monthly performance reviews based on verified compliance, capability, and performance.

1.2.1 GCE 1, 2, 3 and 4: General, The Contract, Governing Laws and Jurisdiction, Communications

GCE Clause	Topic	SCE Modification
1.1, 1.3, 1.4	General	Additional abbreviations are included in the contract where needed.
1.2	Procuring Entity	The Contract will be signed by the Director, State Geospatial Directorate (SGD) on behalf of the Surveyor

		General of India. Implementation responsibility lies with the SGD and relevant government agencies.
1.2 (9)	Contract Manager	The State Geospatial Directorate will oversee contract execution, with support from the project management team.
2.1	Language of Contract	English
3.1	Governing Laws & Jurisdiction	Firms must comply with National Geospatial Policy-2022, Geospatial Guidelines for Data Acquisition, and Drone Rules 2021.
4.1, 4.3	Communications and Notices	No additional requirements beyond GCE.
4.2	Persons Signing Communications	No deviation from GCE.

1.2.2 GCE 5 and 6: Contractor's and Procuring Entity's Obligations

GCE Clause	Topic	SCE Modification
5.7	Confidentiality & Data Security	Security Instructions: 1) Comply with all geospatial security laws. 2) Submit UAV/Aircraft flight schedules in advance. 3) Survey confined to designated AOI. 4) Foreign consultants require MHA/MEA clearance. 5) Processing within a secure facility. 6) Restricted data access; government reserves inspection rights.
5.8	Performance Security	Performance security is not required for empanelment but will be mandated at the project work order stage as per the specific project-based RFP. 3% of contract price to be submitted to the State

		Geospatial Directorate.
5.13	Book Examination Clause	GCE Clause 5.13 is applicable.
6.1, 6.2, 6.3	Data Provided to Firms	State Geospatial Directorate will provide: 1) AOI in KML/KMZ/Shape format. 2) Other maps and records (as applicable and available).

1.2.3 GCE 7 and 8: Scope of Services, Performance Standards and Quality Assurance

GCE Clause	Topic	SCE Modification
7.2 & 7.3	Performance Standards, QA	Procuring Entity will notify defects within 15 working days. Firms must rectify defects promptly.
7.4	Eligible Services	No deviation from GCE.
7.5	Quantity Tolerance	No deviation from GCE.
7.6	Empanelment Validity	Empanelment valid for 3 years.
8.3.1	Work Volume Variation	100% work increase permissible. If a firm fails to deliver, work may be reassigned to another empanelled firm meeting performance criteria.

1.2.4 GCE 9: Deployment of Resources

GCE Clause	Topic	SCE Modification
9.2	Labour Codes & Obligations	No deviation from GCE.
9.2.1	Key Personnel	Failure to deploy committed UAVs, Aircraft, or personnel as per the empanelment response shall result in penalties including empanelment suspension, monetary fines, and blacklisting from future tenders.

1.2.5 GCE 10: Delivery of Services and Delays

GCE Clause	Topic	SCE Modification
10.1	Works Programme	Work Plan submission within 7 days of receiving the Work order from State GD.
10.5.2	Defect Rectification Penalties	1) Failure to rectify within 21 days: 0.5% penalty per day beyond 22 days (up to 30 days). 2) Unauthorized data disclosure: Contract termination + legal action.
10.5.3	Liquidated Damages	1) Data acquisition delays: 1.25% per week penalty (up to 8 weeks). Beyond 8 weeks, contract cancellation & PBG forfeiture. 2) Late deliverables: 1.25% penalty per week (up to 8 weeks), beyond which contract is cancelled.
10.3	Commencement of Services	15 days of receiving the Work order from State GD.

1.2.6 GCE 11: Prices and Payments

GCE Clause	Topic	SCE Modification
11.1.2	Price Variation Clause	Not Applicable (No financial bids in this RFE).
11.3	Payment Terms	Payment structure is removed. Empanelled firms will bid for financials separately in project-based RFPs.
11.5.4 (1)	Advance Payments	Not Applicable.
11.6	Completion & Final Acceptance	Work allocation to be defined in project-specific RFPs.
11.7	Defects Liability Period	Firms must rectify errors within 21 days of notification. Continued quality issues may lead to penalties or termination.

1.2.7 GCE 12: Resolution of Disputes

GCE Clause	Topic	SCE Modification
12.2	Excepted Matters	No deviation from GCE.
12.5	Arbitration	Deleted (Disputes handled as per government policies).

1.2.8 GCE 13: Defaults, Breaches, Termination and Closure of Contract

GCE Clause	Topic	SCE Modification
13.1.4-7	Risk and Cost Procurement	Applicable. Underperforming firms may be replaced with other empanelled firms.

Section VI: Schedule of Requirements&VI-1: Services and Activities Schedule

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

1. Introduction

This section provides **detailed technical specifications, deliverables, and quality control requirements (QCR)** for the various **Geospatial Mapping and Survey Services** as part of the empanelment process.

- The empanelment will be valid for 3 years.
- Financial bids will not be sought under this RFE; instead, project-specific financial proposals will be requested from technically qualified firms through separate RFPs.
- Service providers must comply with all relevant national geospatial policies, drone regulations, and security guidelines.
- Wherever applicable, all deliverables must adhere to the latest quality and accuracy standards prescribed by the American Society for Photogrammetry and Remote Sensing (ASPRS), in addition to the Category-specific specifications mentioned herein.

2. Categories of Services and Scope of Work with Technical Specifications

Category 1: Drone Services for Ortho Rectified Imagery (ORI) & Digital Surface Model (DSM)

Scope of Work

This category involves the **acquisition and processing of high-resolution aerial imagery** using UAVs equipped with nadir cameras to generate precise **Digital True Ortho-imagery (ORI)** and **Digital Surface Models (DSM)**. The scope of work includes:

Aerial Data Acquisition:

- Deployment of **UAVs with nadir cameras** to capture high-resolution imagery.
- **Flight planning and execution** to ensure complete coverage of the Area of Interest (AOI).
- Compliance with **DGCA regulations for UAV operations**.

Image Processing & Ortho-rectification:

- Generation of **Digital True Ortho-imagery (ORI)** using high-resolution nadir imagery.
- **Ortho-rectification and mosaicking** of imagery to create seamless orthophoto maps.
- Raster dataset processing to generate high-quality, distortion-free imagery.

Digital Surface Model (DSM) & Digital Terrain Model (DTM) Generation:

- **Photogrammetric processing** to create DSM and DTM.
- Filtering of non-terrain objects (buildings, vegetation) for generating DTM.
- Comparison of DSM and DTM for terrain analysis and 3D visualization.

Geo-referencing & Accuracy Validation:

- Establishment of **Ground Control Points (GCPs)** using **GNSS-based control systems**.
- Validation of accuracy using **Checkpoints (CPs)** as per project requirements.
- Ensuring **horizontal and vertical accuracy** as per specified RMSE limits.

Data Processing & Visualization:

- **Orthomosaic generation and tiling** for efficient data handling and visualization.
- Creation of **standardized deliverables** for geospatial analysis.

Technical Specifications

This section outlines the technical specifications to be adhered to during the **data acquisition, processing, and delivery stages**.

Parameter	Specification
Aerial Data Acquisition	UAVs with Nadir Camera (Type-certified UAVs as per DGCA regulations).
Resolution (GSD)	≤ 5 cm.
Projection & Datum	UTM & WGS-84 (as per project requirements).

Parameter	Specification
Horizontal Accuracy (Output Deliverables)	≤ 10 cm RMSE (Root Mean Square Error).
Horizontal Accuracy (GCPs & Checkpoints)	≤ 2 cm RMSE.
Vertical Accuracy (DSM/DTM)	≤ 25 cm RMSE.
Geo-Referencing & Control	GNSS-based control with dual-frequency RTK/PPK GNSS receivers.
Flight Planning Software	Dedicated flight planning software ensuring overlap and coverage.
Data Processing Software	Agisoft Metashape, Pix4D, or equivalent software.
Data Storage & Transfer	Cloud-based repository/NAS boxes for secure data storage and transfer.
Compliance with DGCA Guidelines	Operations to be conducted under valid UAV licenses and approvals.
Quality Control Measures	Verification of spatial accuracy, orthorectification precision, and completeness.
Deliverables	<ul style="list-style-type: none"> - ORI (GeoTIFF), DSM, DTM, Orthophoto Mosaic.
	<ul style="list-style-type: none"> - Accuracy Report including GCP/Checkpoint validation details.
	<ul style="list-style-type: none"> - Mosaicked Raster Tiles (if required).
	<ul style="list-style-type: none"> - Metadata Documentation for deliverables.

Category 2: Drone Services for 3D City Model

Scope of Work

This category involves the **acquisition of high-resolution oblique imagery** using UAVs equipped with **multi-angle camera systems** to generate **3D City Mesh Models** and **LoD-1/LoD-2 building representations**. The process ensures high-precision 3D mapping for urban planning, smart city projects, and visualization applications.

Scope of Work Includes:

Aerial Data Acquisition:

- Deployment of UAVs with multi-camera systems comprising **1 nadir and 4 oblique cameras**.

- **Flight planning and execution** to ensure comprehensive coverage of urban areas with overlapping images from various angles.
- Ensuring compliance with **DGCA regulations and obtaining necessary permissions for UAV operations.**

3D City Model Generation:

- Processing of oblique and nadir imagery to produce **3D City Mesh Models** with detailed building facades, textures, and infrastructure elements.
- Generation of **Level of Detail (LoD-1 and LoD-2) models** with accurate structural representation.
- Development of **photorealistic rendering** and **texturing of building facades** for enhanced visualization.

Geo-referencing & Control:

- Establishment of **Ground Control Points (GCPs)** using **GNSS-based control systems (RTK/PPK-enabled UAVs)**.
- Validation of horizontal and vertical accuracy of the generated 3D models through **Checkpoints (CPs)**.

Data Processing & Integration:

- **Orthomosaic generation** for nadir imagery and alignment with oblique images.
- **3D reconstruction of urban structures** with precise texture mapping and mesh generation.
- Conversion of models to various formats for compatibility with GIS software.

Deliverables Preparation:

- Generation of **standardized deliverables** suitable for various urban applications including smart city planning, 3D visualization, infrastructure monitoring, etc.

Technical Specifications

This section details the technical specifications for UAV-based **3D city model acquisition, processing, and delivery**.

Parameter	Specification
Aerial Data Acquisition	UAVs with Oblique Multi-Camera System (1 Nadir + 4 Oblique Cameras).
Resolution (GSD)	≤ 5 cm (Ground Sampling Distance).
Projection & Datum	UTM & WGS-84 (as per project requirements).
3D Model Level (LoD)	LoD-1: Basic block models with roof structures.

Parameter	Specification
	LoD-2: Detailed models with building facades and textures.
Geo-Referencing & Control	GNSS-based control with RTK/PPK-enabled UAVs for high-precision positioning.
Flight Planning Software	Dedicated software for 3D City Modeling and Flight Path Optimization .
Data Processing Software	AgisoftMetashape, Context Capture, Pix4D, or or equivalent software with similar capabilities).
Texturing & Rendering	High-resolution photorealistic rendering for building facades and infrastructure .
Data Storage & Transfer	Cloud-based repositories/NAS Boxes for data storage and delivery.
Compliance with DGCA Guidelines	Operations to be conducted under valid UAV licenses and approvals.
Quality Control Measures	Verification of spatial accuracy, completeness of 3D models, and texture clarity.
Deliverables	<ul style="list-style-type: none"> - 3D City Mesh Models (CityGML, OBJ, FBX formats).
	<ul style="list-style-type: none"> - Textured Models with photorealistic rendering.
	<ul style="list-style-type: none"> - Orthomosaic Tiles (if applicable).
	<ul style="list-style-type: none"> - GCP/Checkpoint Accuracy Report.
	<ul style="list-style-type: none"> - Metadata Documentation for all deliverables.

Category 3: Drone Services for ORI and Terrain Survey using LiDAR

Scope of Work

This category involves the acquisition and processing of high-resolution aerial imagery and LiDAR data using UAVs equipped with nadir cameras and air borne LiDAR sensors. The objective is to generate accurate Ortho-Rectified Imagery (ORI), Digital Surface Models (DSM), and optionally Digital Terrain Models (DTM) for terrain analysis and mapping. This category supports applications such as land-use planning, flood risk analysis, infrastructure monitoring, forest mapping, and 3D surface modeling.

Scope of Work Includes:

Aerial Data Acquisition:

- Deployment of UAVs fitted with nadir cameras and high-precision airborne LiDAR sensors.
- Flight planning and execution to ensure complete and overlapping coverage of the Area of Interest (AOI).
- Real-time monitoring of sensor data acquisition.
- Operations in compliance with DGCA regulations and UAV flight permissions.

Image & LiDAR Data Processing:

- Image Processing: Orthorectification and mosaicking of high-resolution imagery to produce seamless ORI.
- DSM Generation: Surface modeling from either imagery or LiDAR returns.
- DTM Generation: Filtering and classification of point clouds (when LiDAR is used) to produce bare-earth DTM.
- Generation of Contours, Slope Maps, and Elevation Models as needed.

Geo-referencing & Accuracy Validation:

- Establishment of Ground Control Points (GCPs) and Checkpoints (CPs) using RTK/PPK GNSS systems.
- Validation of horizontal and vertical accuracy against reference checkpoints.
- Preparation of accuracy reports in accordance with ASPRS standards (where applicable).

Data Processing & Integration:

- Integration of LiDAR and imagery datasets for higher fidelity and coverage.
- Use of specialized software for processing, classification, filtering, and product generation.

Deliverables Preparation:

- Generation of standardized deliverables for GIS integration, visualization, and analysis.

Technical Specifications

Parameter	Specification
Aerial Data Acquisition	UAVs with Nadir Camera and Airborne LiDAR Sensor (DGCA Type-Certified UAVs).
Resolution (ORI GSD)	≤ 5 cm (for imagery-based ORI).
Point Cloud Density (LiDAR)	≥ 10 pts/m ² (when LiDAR is used).
Projection & Datum	UTM & WGS-84 (as per project requirements).
Horizontal Accuracy (ORI)	≤ 10 cm RMSE (image-based deliverables).
Vertical Accuracy (DTM)	≤ 25 cm RMSE (when applicable).
Geo-referencing & Control	GNSS-based control with RTK/PPK-enabled GNSS receivers.
Flight Planning Software	Dedicated software ensuring overlap,

	coverage, and LiDAR scan planning.
Data Processing Software	AgisoftMetashape, Terrasolid, Leica Cyclone, Pix4D, or equivalent software.
Classification Levels (LiDAR)	Ground, Vegetation, Buildings, Water, Infrastructure.
Data Integration	Integrated LiDAR and imagery workflows for enhanced accuracy and context.
Data Storage & Transfer	Cloud-based repositories/NAS Boxes for secure storage and delivery.
Compliance	DGCA UAV regulations + ASPRS standards wherever applicable.
Quality Control Measures	Spatial accuracy checks, classification verification, orthorectification QA.
Deliverables	<ul style="list-style-type: none"> - Ortho-Rectified Imagery (ORI) in GeoTIFFformat. - Digital Surface Model (DSM) and optionally Digital Terrain Model (DTM). - Point Cloud Files (LAS/LAZ format) if LiDAR is used. - Contours, Slope Maps, and Elevation Reports. - GCP/Checkpoint Accuracy Report, which must be prepared in accordance with the latest ASPRS guidelines for quality and accuracy applicable to the service category. - Metadata Documentation for all deliverables.

Category 4: Manned Aerial Services for ORI and Terrain Survey using LiDAR

Scope of Work

This category involves the **acquisition and processing of high-resolution aerial imagery and LiDAR data using manned aerial platforms (Fixed-Wing Aircraft / Helicopters)**. This service is intended for **large-area surveys**, such as state-wide terrain mapping, environmental monitoring, and infrastructure planning.

Scope of Work Includes:

Aerial Data Acquisition:

- **Deployment of Fixed-Wing Aircraft / Helicopters** fitted with Nadir Cameras and LiDAR Sensors.
- **Flight planning and execution** to ensure comprehensive coverage of the Area of Interest (AOI).
- **High-altitude data acquisition** for large-area surveys, ensuring minimal ground obstructions and efficient coverage.
- **Compliance with DGCA regulations and obtaining necessary permissions for manned aircraft operations.**

LiDAR Scanning & Image Capture:

- **Airborne LiDAR scanning** for detailed terrain modeling.
- **Simultaneous image acquisition using Nadir Cameras** for generating high-resolution orthoimages.
- **Multi-sensor integration (LiDAR & Camera Systems)** for seamless terrain and surface modeling.

Data Processing & Quality Control:

- **Processing of LiDAR data** to generate **Digital Surface Models (DSM)** and **Digital Terrain Models (DTM)**.
- **Filtering of non-ground objects (vegetation, buildings)** to create accurate **DTM**.
- **Orthoimage generation and mosaicking** for creating seamless orthophoto maps.
- **Hydrological modeling and slope analysis** for terrain assessment.

Geo-referencing & Accuracy Validation:

- Establishment of **Ground Control Points (GCPs)** using **GNSS-based control systems (RTK/PPK-enabled)**.
- **Validation of horizontal and vertical accuracy** using checkpoints.
- Generation of **Accuracy Reports** to validate data quality and compliance with specifications.

Deliverables Preparation:

- Preparation of **standardized deliverables** suitable for further processing, analysis, and visualization.

▪ **Technical Specifications**

This section details the technical specifications for **manned aerial data acquisition, processing, and deliverables**.

Parameter	Specification
Aerial Data Acquisition	Fixed-Wing Aircraft / Helicopter with Nadir Camera and High-Resolution Airborne LiDAR.
Resolution (GSD)	≤ 10 cm (Ground Sampling Distance for imagery).
Projection & Datum	UTM & WGS-84 (as per project requirements).
LiDAR System	High-Resolution Airborne LiDAR System with point cloud density ≥ 10 pts/m².
Geo-Referencing & Control	GNSS-based control with RTK/PPK-enabled receivers for precise positioning.

Parameter	Specification
Flight Planning Software	Dedicated flight planning software ensuring complete area coverage and overlap.
Data Processing Software	Terrasolid, Leica Cyclone, Global Mapper, or equivalent for LiDAR processing.
Imagery Processing Software	AgisoftMetashape, Pix4D, or equivalent for orthoimage generation.
Data Integration	Integration of LiDAR and imagery datasets for enhanced accuracy and detail.
Data Storage & Transfer	Cloud-based repositories/NAS Boxes for secure data storage and transfer.
Compliance with DGCA Guidelines	Operations conducted under valid licenses and approvals.
Quality Control Measures	Verification of spatial accuracy, classification accuracy, and completeness.
Deliverables	<ul style="list-style-type: none"> - Digital Surface Model (DSM) in GeoTIFF/ASCII format.
	<ul style="list-style-type: none"> - Digital Terrain Model (DTM) in GeoTIFF/ASCII format.
	<ul style="list-style-type: none"> - Hydrological Models and Slope Maps.
	<ul style="list-style-type: none"> - Ortho-rectified Imagery (ORI) with mosaicked tiles.
	<ul style="list-style-type: none"> - LiDAR Point Cloud Files (LAS/LAZ format).
	<ul style="list-style-type: none"> - GCP/Checkpoint Accuracy Report.
	<ul style="list-style-type: none"> - Metadata Documentation for all deliverables.

Category 5: Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR

Scope of Work

This category involves the **acquisition of high-resolution 3D data** using **manned aerial platforms (Fixed-Wing Aircraft / Helicopters)** equipped with **oblique cameras and LiDAR sensors**. The purpose is to generate **detailed 3D City Models (LoD-2 / LoD-3)**, terrain mapping, and accurate **Digital Terrain Models (DTM)** for urban planning, infrastructure design, and environmental analysis.

Scope of Work Includes:

Aerial Data Acquisition:

- **Deployment of Aircraft / Helicopters** fitted with **Oblique Cameras (1 Nadir + 4 Oblique)** and **LiDAR Sensors**.
- **High-altitude data acquisition** for wide-area surveys, especially urban environments and complex terrains.
- Comprehensive coverage of the Area of Interest (AOI) with **overlapping imagery** to ensure complete 3D model creation.
- **Compliance with DGCA regulations and necessary permissions for manned aircraft operations.**

3D City Modeling & Terrain Survey:

- **Capture of multi-angle images and LiDAR point clouds** for generating detailed 3D models.
- Processing of **oblique images and LiDAR data** to produce **3D City Mesh Models (LoD-2 / LoD-3)** with accurate building structures, facades, and textures.
- **Generation of DTM, DSM, and Point Cloud Data** from LiDAR acquisition.
- Integration of **LiDAR and Photogrammetric data** for enhanced accuracy and visualization.

Geo-referencing & Accuracy Validation:

- Establishment of **Ground Control Points (GCPs)** and **Checkpoints (CPs)** using **GNSS-based control systems (RTK/PPK-enabled)**.
- **Validation of horizontal and vertical accuracy** of 3D models and terrain datasets.
- Preparation of **Accuracy Reports** to verify data quality.

Data Processing & Integration:

- **Processing of LiDAR data** for terrain classification, filtering, and segmentation.
- Generation of **DSM, DTM, Contours, and Elevation Models** from LiDAR data.
- Integration of **oblique imagery** to enhance the visual representation of 3D city models.

Deliverables Preparation:

- Preparation of **standardized deliverables** suitable for various applications including smart city planning, infrastructure monitoring, and terrain analysis.

Technical Specifications

This section details the technical specifications for **manned aerial data acquisition, processing, and deliverables**.

Parameter	Specification
Aerial Data Acquisition	Aircraft / Helicopter with Oblique Camera (1 Nadir + 4 Oblique) and High-Resolution LiDAR Sensor.
3D Model Level (LoD)	LoD-2: Building structures with detailed facades. LoD-3: High-resolution models with architectural details, textures, and

Parameter	Specification
	structural components.
Projection & Datum	UTM & WGS-84 (as per project requirements).
LiDAR System	High-Resolution Airborne LiDAR System with point cloud density ≥ 10 pts/m ² .
Geo-Referencing & Control	GNSS-based control with RTK/PPK-enabled receivers for precise positioning.
Flight Planning Software	Dedicated flight planning software ensuring comprehensive coverage of the area.
Data Processing Software	Terrasolid, Leica Cyclone, AgisoftMetashape, Context Capture, or equivalent.
Texturing & Rendering	High-resolution photorealistic rendering for facades and terrain elements.
Data Integration	Integration of LiDAR and imagery datasets for enhanced accuracy and detail.
Data Storage & Transfer	Cloud-based repositories/NAS Boxes for secure data storage and delivery.
Compliance with DGCA Guidelines	Operations conducted under valid licenses and approvals.
Quality Control Measures	Verification of spatial accuracy, completeness of 3D models, and texture clarity.
Deliverables	<ul style="list-style-type: none"> - 3D City Mesh Models (CityGML, OBJ, FBX formats). - LiDAR Point Cloud Files (LAS/LAZ format). - Digital Terrain Model (DTM) in GeoTIFF/ASCII format. - Digital Surface Model (DSM) in GeoTIFF/ASCII format. - Contours, Slope Maps, and Elevation Reports. - Orthophoto Tiles (if applicable). - GCP/Checkpoint Accuracy Report. - Metadata Documentation for all deliverables.

Category 6: 2D Feature Extraction Services

Scope of Work

This category involves the **extraction of 2D features from high-resolution geospatial datasets**. The purpose is to create **GIS-ready vector datasets** for applications such as urban planning, cadastral mapping, infrastructure management, environmental monitoring, and land-use analysis.

Scope of Work Includes:

Data Preparation & Input Sources:

- Collection of **source data** from various geospatial datasets, such as:
 - **Orthorectified Imagery (ORI)** obtained from UAVs or aircraft.
 - **Stereo Images** derived from aerial photogrammetry or satellite imagery.
 - **LiDAR datasets** where applicable for enhanced accuracy.
- **Integration of data sources** to create a base for feature extraction.

Feature Extraction Process:

- **Digitization of various thematic layers** including:
 - Roads, buildings, infrastructure, water bodies, vegetation, land parcels, utilities, and transportation networks.
- **Manual and Semi-Automated Digitization Methods:**
 - **Manual Digitization:** Vectorization of features through visual interpretation of imagery.
 - **Semi-Automated Digitization:** Use of **feature extraction algorithms** for enhanced efficiency.
- **Attribute Assignment:**
 - Adding **descriptive attributes** to features for classification and analysis.

Data Processing & Quality Control:

- **Editing and Topology Correction:** Ensuring **spatial consistency** of vector data (e.g., no gaps, overlaps, or dangles).
- **Accuracy Assessment:** Comparing extracted features with **reference datasets (GCPs, Checkpoints, existing GIS layers)**.
- **Metadata Preparation:** Ensuring all data layers are properly documented.

Deliverables Preparation:

- Preparation of **standardized deliverables** compatible with various GIS software.

Technical Specifications

This section outlines the technical specifications for **2D feature extraction, processing, and deliverables**.

Parameter	Specification
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Parameter	Specification
Source Data	<ul style="list-style-type: none"> - Orthorectified Imagery (ORI) from UAVs or Manned Aerial Platforms. - Stereo Images from photogrammetry or satellite imagery. - LiDAR Datasets (where applicable).
Extraction Method	<ul style="list-style-type: none"> - Manual Digitization: Visual interpretation and vectorization. - Semi-Automated Digitization: Use of algorithms for feature extraction.
Tools & Software	<ul style="list-style-type: none"> - ArcGIS, QGIS, AutoCAD, ERDAS IMAGINE, ENVI, or equivalent. - Feature Extraction Modules (e.g., Deep Learning, AI-based tools).
Data Processing Requirements	<ul style="list-style-type: none"> - Topology Correction: Ensuring feature connectivity and integrity. - Quality Control Reports: Documentation of accuracy and completeness.
Attribute Data Integration	<ul style="list-style-type: none"> - Assignment of attributes to vector features for classification.
Deliverables	<ul style="list-style-type: none"> - 2D GIS Layers (SHP, GeoJSON, GDB, GPKG formats, etc.). - Thematic Maps (Roads, Buildings, Utilities, Water Bodies, etc.). - Metadata Documentation and Accuracy Reports.
Quality Control Measures	<ul style="list-style-type: none"> - Spatial Accuracy Verification: Comparison against GCPs and existing datasets. - Edge Matching and Topology Validation.
Compliance Standards	<ul style="list-style-type: none"> - Adherence to National GIS Standards (where applicable).
Data Storage & Transfer	<ul style="list-style-type: none"> - Cloud-based repositories/NAS Boxes for data management and delivery.

Category 7: 3D Feature Extraction and Vector Model Services

Scope of Work

This category involves the **extraction of 3D features and generation of 3D vector models** using **Stereo Imagery and LiDAR data**. The primary purpose is to create detailed **3D GIS-ready datasets** for applications such as urban planning, infrastructure management, terrain analysis, smart city projects, and architectural visualization.

Scope of Work Includes:

Data Preparation & Input Sources:

- Collection and integration of **source data** from:
 - **Stereo Imagery (Aerial or Satellite).**
 - **LiDAR Data (UAV-based or Manned Aerial Platforms).**
- **Pre-processing of datasets** to ensure compatibility for 3D modeling.

3D Feature Extraction Process:

- **Stereo Photogrammetry Processing:**
 - Generation of **3D point clouds from stereo pairs.**
 - Creation of **surface models and extraction of terrain features.**
- **LiDAR Data Processing:**
 - Classification of **point clouds into various classes** (Ground, Vegetation, Buildings, Water, etc.).
 - Filtering of non-ground objects to produce **Digital Terrain Models (DTM)**.
 - Generation of **Digital Surface Models (DSM)** where required.
- **3D Vectorization:**
 - Conversion of **point cloud data into 3D vector models** (buildings, bridges, roads, etc.).
 - Generation of **LoD-1 / LoD-2 3D models** for various applications.
- **Texturing and Rendering (where applicable):**
 - Application of **high-resolution textures** to improve model realism.

Geo-referencing & Accuracy Validation:

- **Establishment of Ground Control Points (GCPs)** using **GNSS-based systems (RTK/PPK).**
- Validation of 3D model accuracy through **Checkpoints (CPs).**
- Generation of **Accuracy Reports** for 3D models and terrain datasets.

Data Processing & Integration:

- **Merging of multiple data sources (LiDAR, Stereo Imagery) for enhanced accuracy.**
- **Creation of comprehensive 3D GIS layers** for analysis and visualization.

Deliverables Preparation:

- Preparation of **standardized deliverables** compatible with various 3D GIS software.

Technical Specifications

This section outlines the technical specifications for **3D feature extraction, processing, and deliverables.**

Parameter	Specification
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Parameter	Specification
Source Data	<ul style="list-style-type: none"> - Stereo Imagery (UAV-based, Aerial, Satellite). - LiDAR Data (UAVs, Aircraft/Helicopter-based).
3D Model Level (LoD)	<ul style="list-style-type: none"> - LoD-1: Basic block models with simplified structures and roof outlines. - LoD-2: Detailed models with facades, roof structures, and additional architectural details.
Geo-Referencing & Control	GNSS-based control with dual-frequency RTK/PPK GNSS receivers for precise positioning.
Flight Planning Software	Dedicated flight planning software for stereo image capture.
Data Processing Software	AgisoftMetashape, Context Capture, TerraSolid, Leica Cyclone, or equivalent software.
Texturing & Rendering Tools	Bentley Context Capture, Esri City Engine, Blender, or equivalent.
Classification Levels	<ul style="list-style-type: none"> - Ground, Buildings, Vegetation, Water, Infrastructure, etc.
Data Integration	<ul style="list-style-type: none"> - Merging of LiDAR and photogrammetric data for enhanced accuracy.
Data Storage & Transfer	<ul style="list-style-type: none"> - Cloud-based repositories/NAS Boxes for data storage and delivery.
Compliance Standards	<ul style="list-style-type: none"> - Adherence to relevant national and international 3D GIS standards.
Quality Control Measures	<ul style="list-style-type: none"> - Verification of spatial accuracy, completeness of 3D models, and texture clarity. - Metadata Documentation for all deliverables.
Deliverables	<ul style="list-style-type: none"> - 3D Vector Models (CityGML, OBJ, FBX, SHP formats, etc.).
	<ul style="list-style-type: none"> - DSM, DTM, Point Cloud Files (LAS/LAZ format).
	<ul style="list-style-type: none"> - Textured 3D Models (if applicable).
	<ul style="list-style-type: none"> - GCP/Checkpoint Accuracy Reports.
	<ul style="list-style-type: none"> - Metadata Documentation for all deliverables.

Category 8: DSM to DTM Conversion Services

Scope of Work

This category involves the **processing and conversion of Digital Surface Models (DSM) to Digital Terrain Models (DTM)**. The primary objective is to **remove non-terrain objects** such as buildings, vegetation, and other man-made structures from the DSM to create a **bare-earth model (DTM)**. The DTM serves as a fundamental input for applications such as hydrological modeling, infrastructure planning, flood risk assessment, and topographic analysis.

Scope of Work Includes:

Data Preparation & Input Sources:

- Collection of **Digital Surface Models (DSM)** from:
 - **LiDAR Data (UAVs, Aircraft, Helicopters).**
 - **Stereo Imagery (Photogrammetry-derived DSMs).**
- **Verification of data quality and completeness** before processing.

DSM to DTM Conversion Process:

- **Filtering and Classification of DSM Data:**
 - Identification of non-ground features (buildings, vegetation, bridges, etc.).
 - Separation of ground and non-ground points through classification algorithms.
- **Bare-Earth Model Generation:**
 - Removal of all non-terrain points to produce a true **Digital Terrain Model (DTM)**.
 - Generation of **Contours, Slope Maps, and Hydrological Models (if required)**.
- **Interpolation and Smoothing:**
 - Application of **interpolation techniques** to fill data gaps.
 - **Smoothing of terrain surfaces** where necessary.

Geo-referencing & Accuracy Validation:

- Validation of **horizontal and vertical accuracy** of the processed DTM.
- **Comparison with Ground Control Points (GCPs) and Checkpoints (CPs)** for accuracy assessment.
- Generation of **Accuracy Reports** documenting the conversion process.

Data Processing & Integration:

- **Integration of DSM and DTM data** for various analysis purposes.
- Generation of **DTM derivatives** (e.g., Contours, Slope Maps) for enhanced analysis.

Deliverables Preparation:

- Preparation of **standardized deliverables** suitable for various GIS platforms.

Technical Specifications

This section outlines the technical specifications for **DSM to DTM conversion, processing, and deliverables**.

Parameter	Specification
Source Data	<ul style="list-style-type: none"> - Digital Surface Model (DSM) from LiDAR Data (UAV, Aircraft, Helicopter). - Photogrammetry-derived DSMs from Stereo Imagery.
Processing Method	<ul style="list-style-type: none"> - Classification Algorithms: Filtering of non-ground objects (buildings, vegetation). - Bare-Earth Extraction: Removal of all non-terrain points.
Interpolation Techniques	<ul style="list-style-type: none"> - TIN (Triangulated Irregular Network) Generation, Kriging, Nearest Neighbor.
Output Data Types	<ul style="list-style-type: none"> - Digital Terrain Model (DTM) in GeoTIFF and ASCII format. - Point Cloud (LAS/LAZ format) for classified ground points.
Geo-referencing & Control	<ul style="list-style-type: none"> - GNSS-based Ground Control Points (GCPs) and Checkpoints (CPs).
Vertical Accuracy (DTM)	<ul style="list-style-type: none"> - ≤ 25 cm RMSE (Root Mean Square Error).
Software Tools	<ul style="list-style-type: none"> - Terrasolid, Global Mapper, ArcGIS, QGIS, Cloud Compare, or equivalent.
Data Integration	<ul style="list-style-type: none"> - Merging of LiDAR and photogrammetric datasets for enhanced accuracy.
Data Storage & Transfer	<ul style="list-style-type: none"> - Cloud-based repositories/NAS Boxes for data storage and delivery.
Quality Control Measures	<ul style="list-style-type: none"> - Verification of vertical accuracy, completeness, and surface smoothness. - Generation of Accuracy Reports and Metadata.
Compliance Standards	<ul style="list-style-type: none"> - Adherence to relevant national and international GIS standards.
Deliverables	<ul style="list-style-type: none"> - Digital Terrain Model (DTM) in GeoTIFF/ASCII format. - Contours (as specified). - Slope Maps and Hydrological Models (if applicable). - Point Cloud (Ground Points Only). - GCP/Checkpoint Accuracy Report. - Metadata Documentation for all deliverables.

Category 9: Geo-Positioning Services (Horizontal Control)

Scope of Work

This category involves the **establishment of high-precision Ground Control Points (GCPs)** for accurate georeferencing of aerial imagery, LiDAR datasets, and other geospatial data. The GCPs serve as reliable reference points to ensure the **positional accuracy of geospatial products**.

Scope of Work Includes:

Pre-Survey Planning & Site Preparation:

- Identification and selection of **suitable ground control point locations** across the Area of Interest (AOI).
- Preparation of **Survey Design Plans**, including spatial distribution of GCPs for optimal coverage.
- Ensuring **safety and accessibility of sites** for establishing GCPs.
- Preparation of **field logs, observation sheets, and data collection protocols**.

Establishment of Ground Control Points (GCPs):

- Deployment of **High-Precision GNSS Receivers (RTK/PPK-enabled)** for GCP establishment.
- Ensuring **dual-frequency signal reception (L1, L2, etc.)** for improved accuracy and precision.
- Ensuring **redundancy through multiple observations** to minimize errors.
- Ensuring **accurate alignment with the WGS-84 Datum**.
- Application of **post-processing techniques** where applicable to enhance accuracy.

Geo-referencing & Data Integration:

- Integration of GCPs with **aerial and LiDAR datasets** for accurate geo-referencing.
- Preparation of **Control Point Reports** detailing positional accuracy and quality of established GCPs.

Accuracy Assessment & Validation:

- Verification of **horizontal accuracy of GCPs** through comparison with independent reference points (Checkpoints).
- Preparation of **Accuracy Reports** to validate positional accuracy.

Deliverables Preparation:

- Preparation of **standardized deliverables** for use in geo-referencing and quality assessment.

Technical Specifications

This section outlines the technical specifications for **Horizontal Control Services, processing, and deliverables**.

Parameter	Specification
Survey Equipment	- High-Precision GNSS Receivers (Dual-frequency RTK/PPK-enabled) .
	- Total Stations (where applicable) .
Accuracy Requirement	- Horizontal Accuracy: $\leq 2 \text{ cm RMSE}$ (Root Mean Square Error) .
Reference Datum	- WGS-84 (as per project requirements) .

Parameter	Specification
Survey Design	- GCP Layout Plan: Spatial distribution to ensure optimal coverage.
Observation Techniques	- Multiple Observations per GCP: Minimum of 3 observations for redundancy.
	- Observation Duration: Minimum observation time per point to ensure accuracy.
Post-Processing	- Use of GNSS post-processing software (e.g., Trimble Business Center, Leica Geo Office or equivalent software with similar capabilities).
Geo-Referencing Methods	- Adjustment of GCP coordinates to the WGS-84 Datum.
Data Integration	- Incorporation of GCPs into aerial imagery and LiDAR datasets.
Quality Control Measures	- Verification of spatial accuracy against independent Checkpoints (CPs).
	- Preparation of Accuracy Reports and Metadata.
Compliance Standards	- Adherence to relevant national and international GNSS standards.
Data Storage & Transfer	- Cloud-based repositories/NAS Boxes for secure storage and transfer.
Deliverables	- Control Point Reports: Including GCP coordinates, accuracy measurements, observation logs, and field sketches.
	- Accuracy Reports: Documentation of spatial accuracy validation.
	- Metadata Documentation for all deliverables.

Category 10: Geo-Positioning Services (Vertical Control)

Scope of Work

This category involves the establishment of precise vertical control benchmarks for height determination and vertical geo-referencing. The benchmarks are essential for high-precision topographical mapping, infrastructure planning, hydrological modeling, and engineering projects.

Scope of Work Includes:

Pre-Survey Planning & Site Selection:

Identification of **benchmark locations** across the Area of Interest (AOI).

- Preparation of **Survey Design Plans** detailing the distribution of benchmarks to provide optimum coverage.
- Ensuring **accessibility and stability** of benchmark locations.
- Preparation of **field logs, observation sheets, and levelling protocols**.

Establishment of Vertical Control Benchmarks:

- Deployment of **Precision Leveling Instruments** including:
 - **Digital Levels** (with high-resolution reading capability).
 - **Invar Staff** (for accuracy enhancement).
 - **Barcoded Staff** (for automated reading).
- Establishment of **Benchmarks with reference to the Indian Vertical Datum (IVD)**.
- Application of **Differential Leveling Techniques**:
 - **First-Order Leveling**: High-precision leveling with allowable misclosure of $\pm 4 \text{ mm}/\sqrt{K}$ where K is distance in km.
 - **Second-Order Leveling**: Moderate precision leveling with allowable misclosure of $\pm 12 \text{ mm}/\sqrt{K}$ where K is distance in km.
 - **Third-Order Leveling**: Standard leveling with allowable misclosure of $\pm 25 \text{ mm}/\sqrt{K}$ where K is distance in km..
- Application of **precise adjustment techniques** for enhanced accuracy.

Geo-referencing & Data Integration:

- Integration of **Vertical Control Benchmarks** with other geospatial datasets.
- Alignment of benchmarks with the **Indian Vertical Datum (IVD)** for consistent height referencing.

Accuracy Assessment & Validation:

- Verification of **vertical accuracy of benchmarks** against known reference points (if available).
- Preparation of **Benchmark Accuracy Reports** documenting the accuracy validation process.

Deliverables Preparation:

- Preparation of **standardized deliverables** for use in various geospatial applications.

Technical Specifications

This section outlines the technical specifications for **Vertical Control Services, processing, and deliverables**.

Parameter	Specification

Parameter	Specification
Survey Equipment	- Digital Levels (High-Precision), Invar Staff, Barcoded Staff.
Levelling Techniques	- Differential Leveling (First-Order, Second-Order, Third-Order).
Allowable Misclosure (Accuracy)	<ul style="list-style-type: none"> - First-Order Leveling: $\pm 4 \text{ mm} * \sqrt{K}$ where K is distance in km. - Second-Order Leveling: $\pm 12 \text{ mm} * \sqrt{K}$ where K is distance in km. - Third-Order Leveling: $\pm 25 \text{ mm} * \sqrt{K}$ where K is distance in km.
Reference Datum	- Indian Vertical Datum (IVD).
Observation Protocols	<ul style="list-style-type: none"> - Minimum number of observations per benchmark: 3. - Observation duration per point to ensure accuracy.
Post-Processing Techniques	- Least Squares Adjustment, Network Adjustment, Height Adjustment.
Data Processing Software	- Trimble Business Center, Leica Geo Office, AutoLev, or equivalent.
Geo-referencing Methods	- Adjustment of benchmark coordinates to the Indian Vertical Datum (IVD).
Data Integration	- Use of vertical benchmarks for geo-referencing of aerial and LiDAR datasets.
Quality Control Measures	<ul style="list-style-type: none"> - Verification of vertical accuracy, completeness, and reliability. - Generation of Accuracy Reports and Metadata.
Compliance Standards	- Adherence to National/International standards for geodetic levelling.
Data Storage & Transfer	- Cloud-based repositories/NAS Boxes for data storage and transfer.
Deliverables	<ul style="list-style-type: none"> - Benchmark Reports: Including benchmark coordinates, elevation, observation logs, allowable misclosure, and adjustment results. - Accuracy Reports: Documentation of vertical accuracy validation.

Parameter	Specification
	- Metadata Documentation for all deliverables.

Category 11: Georeferencing Services

Scope of Work

This category involves the **georeferencing of old maps and legacy records** from various sources, including hardcopy maps, raster scans, cadastral maps, topographical sheets, and legacy GIS datasets. The objective is to **transform these records to a modern coordinate system (WGS-84)** for compatibility with current GIS and remote sensing applications.

Scope of Work Includes:

Source Data Preparation:

- Collection of **legacy maps and records** from various sources, including:
 - Historical maps, cadastral maps, topographical sheets, satellite imagery, and GIS files.
 - Raster scans of physical maps (e.g., paper maps, blueprints, and printed aerial photographs).
 - Vector datasets in various local datums and projections.
- **Digitization of hardcopy maps** through high-resolution scanning (if applicable).

Georeferencing Process:

- Identification of **Ground Control Points (GCPs)** using:
 - Existing reference maps with known coordinates.
 - GNSS surveys to collect precise GCPs in the field (if required).
 - High-resolution satellite imagery as a reference source.
- **Transformation of Source Data to WGS-84:**
 - Application of **Affine, Polynomial, Spline, or Projective Transformations** as per data type.
 - Use of **Coordinate Transformation Algorithms** for complex datasets.
- **Geo-rectification and Warping:**
 - Correcting distortions in raster images to fit the desired coordinate system.
 - Aligning vector data to the correct spatial reference frame.

Data Processing & Quality Control:

- **Verification of spatial accuracy** through comparison with independent reference datasets.
- Generation of **Quality Control Reports** to ensure positional accuracy.
- **Metadata Documentation** for georeferenced data, including transformation parameters.

Data Integration & Output Preparation:

- Conversion of georeferenced datasets to standard GIS-compatible formats.

- Integration of transformed datasets into modern GIS systems for analysis and visualization.

Technical Specifications

This section outlines the technical specifications for **Georeferencing Services, processing, and deliverables**.

Parameter	Specification
Source Data	<ul style="list-style-type: none"> - Legacy Maps, Cadastral Sheets, Raster Scans, Printed Aerial Photographs.
	<ul style="list-style-type: none"> - Vector Datasets with non-standard coordinate systems.
Georeferencing Techniques	<ul style="list-style-type: none"> - Ground Control Point (GCP) Collection: Through GNSS or image-based referencing.
	<ul style="list-style-type: none"> - Image Registration and Warping: Raster correction and alignment.
	<ul style="list-style-type: none"> - Transformation Algorithms: Affine, Polynomial, Spline, Projective.
Reference Datum	<ul style="list-style-type: none"> - WGS-84 (Standard Reference System).
Data Processing Tools	<ul style="list-style-type: none"> - ArcGIS, QGIS, ERDAS IMAGINE, Global Mapper, AutoCAD Map 3D, etc.
Coordinate Transformation	<ul style="list-style-type: none"> - Datum Conversion (if applicable): Local datum to WGS-84.
	<ul style="list-style-type: none"> - Projection Transformation: Adjusting projections to align with WGS-84.
Accuracy Requirements	<ul style="list-style-type: none"> - Horizontal Accuracy: As per project requirements (e.g., ≤ 10 cm RMSE).
Quality Control Measures	<ul style="list-style-type: none"> - Verification of accuracy through comparison with control datasets.
	<ul style="list-style-type: none"> - Generation of Quality Control Reports.
	<ul style="list-style-type: none"> - Documentation of Transformation Parameters and Methods.
Data Integration	<ul style="list-style-type: none"> - Integration of georeferenced datasets with existing GIS databases.
Data Storage & Transfer	<ul style="list-style-type: none"> - Cloud-based repositories/NAS Boxes for data storage and delivery.
Deliverables	<ul style="list-style-type: none"> - Geo-referenced Maps (GeoTIFF, GPKG, SHP, GeoJSON formats or any other for

Parameter	Specification
	specific projects based requirements).
	- Coordinate Transformation Reports (Including source and transformed coordinates).
	- Metadata Documentation (Describing transformation methods and accuracy).
	- Quality Control Reports (Describing validation procedures and results).

Note:

- The specifications may be modified by the **Geospatial Directorate (GD)** for specific projects based on **area, complexity, and technical requirements**.
- All deliverables must be **tested, validated, and approved** before final acceptance.

Table 1 Classification scheme for LiDAR point clouds and Classification Level Required

Value	Point Class	Description	Required classes	Classification Level Required (Specified accuracy range in %)			
				L1 (<90)	L2 (90-95)	L3 (95-98)	L4 (>98)
0	Unclassified	Created, never classified	<input checked="" type="checkbox"/>				
1	Default	Unclassified	<input checked="" type="checkbox"/>				
2	Ground	Bare ground	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
3	Low vegetation	0 - 0.3m (essentially sensor noise)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
4	Medium vegetation	0.3 - 2m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
5	High Vegetation	> 2m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
6	Building's Structure	Buildings, houses, sheds, silos etc.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
7	Low Point (Noise)	Spurious low point returns	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
8	Reserved		<input checked="" type="checkbox"/>				
9	Water	Any point in water	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
10	Rail		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
11	Road Surface		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
12	Reserved		<input checked="" type="checkbox"/>				
13	Wire - Guard (Shield)	e.g. ground wires structure	<input checked="" type="checkbox"/>				

14	Wire Conductor (Phase)		<input checked="" type="checkbox"/>				
15	Transmission Tower		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
16	Wire-structure Connector	e.g. Insulator	<input checked="" type="checkbox"/>				
17	Bridge Deck		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
18	High Noise		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
19	Overhead Structure	e.g., conveyors, mining equipment, traffic lights	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
20	Ignored ground	Typically break line proximity	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
21	Snow	if present and identifiable	<input checked="" type="checkbox"/>				
22	Temporal exclusion	Features excluded due to changes over time between data sources - e.g., water levels, landslides, permafrost	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
13-63	Reserved		<input checked="" type="checkbox"/>				
64-255	User definable		<input checked="" type="checkbox"/>				

3. Quality Control Requirements (QCR)

Each deliverable will undergo a comprehensive **independent quality control process** to ensure adherence to the prescribed accuracy standards and deliverable specifications. The Quality Control Requirements (QCR) define the criteria, methods, and deliverables validation processes to ensure compliance with the specified technical requirements of each category of service.

Quality Control Objectives

The primary objectives of the quality control process include:

Ensuring Spatial Accuracy:

- Verifying that all geospatial data products meet the specified **spatial accuracy benchmarks** (Horizontal and Vertical RMSE limits).
- Comparing deliverables against **Ground Control Points (GCPs)**, **Checkpoints (CPs)**, and other **reference datasets** for validation.
- Assessing the consistency and reliability of positioning data.

Data Integrity & Consistency Checks:

- Ensuring completeness of geospatial datasets, with no data gaps or missing features.
- **Edge Matching:** Ensuring seamless connectivity between adjacent tiles or data blocks.
- Checking **topological consistency** in vector datasets (e.g., no gaps, overlaps, or dangles).
- Verifying data integrity during **data merging, mosaicking, and stitching processes**.

Verification of Control Points & Elevation Models:

- Validating GCPs and CPs for positional accuracy and consistency.
- Checking the quality of **Digital Terrain Models (DTM)**, **Digital Surface Models (DSM)**, and **other elevation models** against predefined accuracy standards.
- Ensuring **LiDAR and photogrammetry-derived products** are consistent with control points.

Metadata Validation for Completeness:

- Ensuring all deliverables are accompanied by comprehensive **metadata files** that include:
 - Description of data acquisition methodology.
 - Processing workflows and software tools used.
 - Accuracy assessment and validation reports.
 - Projection, Datum, and Coordinate System information.
 - Details of transformations applied (if any).
 - Licensing, ownership, and usage restrictions.

Visual Inspection & Automated Quality Assessment:

- Conducting **manual visual inspections** to detect artifacts, gaps, misalignments, and other errors.
- Applying **automated quality control algorithms** for detecting and quantifying errors in datasets.

Standardized Reporting & Documentation:

- Preparation of comprehensive **Quality Control Reports (QCR)** documenting:
 - Accuracy metrics (Horizontal and Vertical RMSE, Precision, Recall, Completeness, etc.).
 - Details of the testing process and methodologies applied.
 - Anomalies, errors, and corrective actions taken (if any).
 - Compliance with specified technical requirements.
- Submission of **QCRs along with each deliverable** for independent review and acceptance.

Quality Control Processes & Tools

The quality control process will involve the use of specialized **software tools and methodologies** appropriate to each category of service.

Category of Service	Tools/Software Used	Quality Control Methods
Drone-Based ORI & DSM Generation	AgisoftMetashape, Pix4D, Global Mapper, ArcGIS or equivalent software with similar capabilities)	Accuracy comparison with GCPs, Visual inspection, RMSE calculation.
Drone-Based 3D City Models	Context Capture, AgisoftMetashape, Blender, Esri City Engine or equivalent software with	3D model accuracy checks, texture clarity validation, LoD compliance.

Category of Service	Tools/Software Used	Quality Control Methods
	similar capabilities)	
LiDAR Terrain Survey & DTM Generation	Terrasolid, Leica Cyclone, Global Mapper, Cloud Compare or equivalent software with similar capabilities)	Point cloud classification accuracy, DTM verification, Contour consistency.
2D Feature Extraction Services	ArcGIS, QGIS, AutoCAD, ENVI, ERDAS IMAGINE or equivalent software with similar capabilities)	Topology checks, Edge matching, Attribute consistency.
3D Feature Extraction & Vector Modeling	AgisoftMetashape, Bentley Context Capture, Leica Cyclone or equivalent software with similar capabilities)	3D model precision, Surface integrity, Metadata validation.
DSM to DTM Conversion Services	Terrasolid, Global Mapper, ArcGIS or equivalent software with similar capabilities)	Slope consistency, Surface smoothness, Terrain validation.
Geo-Positioning Services (Horizontal Control)	Trimble Business Center, Leica Geo Office, AutoCAD Map 3D or equivalent software with similar capabilities)	GNSS point validation, Accuracy reports, Coordinate transformation verification.
Geo-Positioning Services (Vertical Control)	AutoLev, Leica Geo Office, Trimble Business Center or equivalent software with similar capabilities)	Leveling precision reports, Benchmark consistency, Misclosure assessment.
Georeferencing Services	ArcGIS, QGIS, ERDAS IMAGINE, Global Mapper or equivalent software with similar capabilities)	Transformation accuracy, Metadata verification, Consistency assessment.

Deliverables & Reporting

The following reports and documents will be submitted as part of the **Quality Control Requirements (QCR)**:

Quality Control Reports (QCR):

- Detailed description of all validation processes performed.
- Summary of accuracy metrics (Horizontal and Vertical RMSE).
- Verification of feature extraction accuracy and completeness.
- Description of anomalies, errors, and corrective actions.

Metadata Files:

- Comprehensive documentation of all deliverables, including coordinate systems, projection details, data sources, and processing methodologies.

Compliance Statements:

- Confirmation of adherence to relevant standards and specifications.
- Explanation of any deviations from the specified requirements.

4. Delivery & Data Storage Requirements

This section outlines the requirements for **data delivery, storage, and transfer** to ensure that all geospatial products are securely stored, accurately transferred, and efficiently managed. The delivery process must adhere to the specified quality control requirements and ensure data integrity throughout the entire chain of custody

Data Delivery Process

The final deliverables will be prepared and transferred to the Procuring Entity in a **structured and secure manner** as described below:

Preparation of Deliverables:

- All geospatial data products (e.g., ORI, DSM, DTM, 3D Models, Vector Layers, Control Point Reports, Georeferenced Maps) must be delivered in **original uncompressed formats (e.g., GeoTIFF, IMG)** and, if required by the Procuring Entity, may additionally be submitted in **compressed/encrypted formats (e.g., ECW, JPEG2000, TPK)**. Compression and encryption should be applied **only when requested** under project-specific requirements. All geospatial data products will be:
 - **Organized in a structured folder hierarchy.**
 - **Labeled with project-specific metadata** to facilitate easy identification.
- Standard file formats for delivery include:
 - **Raster Data:** GeoTIFF, ASCII Grid, JPEG2000, etc.
 - **Vector Data:** SHP, GeoJSON, GDB, GPKG, CityGML, OBJ, FBX, etc.
 - **Point Cloud Data:** LAS/LAZ formats.
 - **Reports:** PDF, DOCX, CSV.

Data Verification Prior to Delivery:

- Ensuring all deliverables meet the required quality standards as per the **Quality Control Requirements (QCR)**.
- Verification of **completeness, accuracy, and consistency** of data files.
- Checking **compatibility with GIS and data processing software**.
- Generation of **Delivery Readiness Certificate** to confirm compliance.

Data Storage Requirements

The processed geospatial data will be **securely stored and maintained** by the Service Provider until successful delivery to the Procuring Entity.

Temporary Data Storage (During Processing):

- Use of **High-Capacity NAS (Network-Attached Storage) Boxes** for local data processing.
- Minimum Storage Requirement: **100 TB or scalable as per project size.**
- Data security measures include:
 - **Redundant Storage Solutions (RAID configurations).**
 - **Automatic Backup Systems** to prevent data loss.
 - **Access Control Mechanisms** to restrict unauthorized access.

Permanent Data Storage (Post-Processing):

- Deliverables must be submitted on **password-protected hard-disks** or as per specific project requirements of Procuring Entity .
- If desired by Procuring Entity, Transfer of **final deliverables to a secure cloud-based repository** or Cloud storage solutions must comply with:
 - Data Encryption Standards (e.g., AES-256) may be applied where required.
 - **Access Authentication Protocols** (e.g., Multi-Factor Authentication, Role-Based Access Controls).
 - **Data Integrity Verification Mechanisms** (e.g., Hash Value Comparison, Checksum Verification).

Data Retention Policy:

- The Service Provider must **retain all processed data** for a specified period (**at least 6 months**) after successful submission to ensure availability in case of discrepancies or additional requests.
- Data deletion protocols must be established, ensuring **permanent removal of data from storage devices upon expiry of the retention period.**

Data Transfer & Submission Requirements

The process of transferring data from the Service Provider to the Procuring Entity must ensure **security, integrity, and accuracy** of all deliverables.

Data Transfer Mechanisms:

- Transfer of data via **High-Capacity NAS Boxes** for physical handover (where applicable).
- Use of **Secure Cloud-Based File Transfer Protocols (FTP, SFTP, HTTPS)** for remote transfer.
- Provision of **download links from cloud repositories** (if required by the Procuring Entity).

Data Validation During Transfer:

- Verification of **file integrity using checksums** (e.g., MD5, SHA-256).
- Comparison of **data sizes and metadata before and after transfer.**
- Generation of **Data Transfer Report** documenting the successful transmission of files.

Submission Protocols:

- Deliverables will only be considered complete when:
 - They have been **validated and approved through the QCR process.**

- The **Procuring Entity acknowledges receipt** of the deliverables.
- All associated **metadata and documentation are provided**.
- The Service Provider will maintain a **log of all submitted files** to provide a comprehensive record of delivery

Documentation & Reporting

The following reports and documents will be provided as part of the **Delivery & Data Storage Requirements**:

Delivery Readiness Certificate:

- Confirms that all deliverables have been reviewed and meet the specified quality standards.

Data Transfer Report:

- Documents the integrity of the data transfer process and lists all files delivered.

Metadata Documentation:

- Comprehensive metadata describing the deliverables, including file formats, coordinate systems, accuracy specifications, software used, and processing steps.

Data Storage Report:

- Describes the storage mechanisms used (NAS Boxes, Cloud Repositories) and their compliance with security standards.

5. Empanelment Process and Technical Qualification Requirements

Stage	Description
Submission of Technical Proposal	Firms submit applications demonstrating compliance with eligibility and class-wise technical qualification criteria defined in Section VIII.
Evaluation of Technical Proposals	Assessment based on documentary validation of class-specific experience, equipment, personnel, and compliance with geospatial quality standards.
Empanelment of Qualified Firms	Firms meeting the criteria for one or more categories are empanelled under the applicable Class (C/B/A/A+), for a period of 3 years. Empanelment shall be subject to payment of the one-time Registration Fee of ₹25,000 by all technically qualified firms.
Project-Based Financial Bidding	Project-specific financial bids will be invited from empanelled firms by respective State Geospatial Directorates, based on their empanelled categories and states.
Performance Monitoring	Six-monthly performance reviews will assess resource availability, quality of deliverables, and adherence to declared capabilities. Empanelment class may be upgraded or downgraded accordingly.

6. Institutional & Organizational Arrangements

Aspect	Details
Contract Manager	Director, State Geospatial Directorate (SGD) – designated for each state/UT.
Reporting Chain	Survey of India > Additional Surveyor General > Director, SGD (Project-wise).
Beneficiaries	Central and State-level Government

	Departments and Project Implementing Agencies.
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7. Key Compliance & Security Requirements

Aspect	Details
DGCA Compliance	Aerial data acquisition must be carried out using type-certified UAVs under valid permits from DGCA.
Drone Rules 2021	UAV operations must comply fully with the provisions of the Drone Rules 2021.
National Geospatial Policy 2022	All mapping activities and data handling shall conform to the norms outlined in NGP 2022.
Security Compliance	Firms must follow strict protocols on data confidentiality, storage, access control, and handover to authorized entities only.
International Standards Compliance	Wherever applicable, firms shall adhere to the latest ASPRS standards for data quality and positional accuracy.

8. Technical Qualification Matrix

A detailed and class-wise Technical Qualification Matrix will be provided in Section VIII of this RFE, evaluating applicants based on:

- Experience in successfully completed projects of similar scope and scale
- Availability of Critical Equipment including UAVs, GNSS systems, LiDAR sensors, and processing infrastructure
- Compliance with Accuracy Standards, including ASPRS or project-specific quality benchmarks
- Technical Personnel availability as per class-wise deployment norms
- Past Performance in Government/PSU/reputed Private Sector geospatial projects, supported by valid completion certificates

9. Key Terms of Empanelment

Clause	Description
Validity of Empanelment	3 Years from the date of issuance of empanelment letter, subject to six-monthly reviews.
Selection Basis	Empanelment is strictly based on technical qualification under the defined class structure (C/B/A/A+).
Project Allocation	No work is allocated under this RFE. All future project allocations shall be through competitive financial bidding from among empanelled firms.
Performance Review	Conducted every six months by the respective State Geospatial Directorate. Class upgradation or degradation may occur based on resource validation, quality compliance, and delivery performance.
No Financial Commitment	Empanelment does not guarantee any financial work. It only enables firms to participate in project-level bidding processes.

Section VII: Performance Standards and Quality Assurance

This section defines the **performance standards, quality assurance mechanisms, compliance requirements, and penalty/incentive framework** for firms seeking **technical qualification-based empanelment** under this RFE.

Empanelment will be **purely based on technical qualification**, ensuring that only competent firms are selected. **Project performance monitoring and financial bidding will be managed separately.**

1. Performance Standards for Empanelment

The following performance standards define the **minimum technical and quality requirements** that all empanelled firms must adhere to during **geospatial data acquisition, processing, feature extraction, and delivery of geospatial products**. Compliance with these standards is mandatory to ensure the consistency, accuracy, and reliability of deliverables.

1.1. General Performance Criteria

All empanelled firms must demonstrate adherence to the following **baseline performance standards**, applicable across all categories of services:

Criteria	Minimum Performance Standard
Survey Accuracy (Horizontal)	Horizontal Accuracy: ≤ 10 cm RMSE (Root Mean Square Error) for all mapping products.
Survey Accuracy (Vertical)	Vertical Accuracy: ≤ 25 cm RMSE for elevation models (DEM/DTM/DSM) generated through LiDAR, Photogrammetry, or GNSS-based surveys.
LiDAR Point Cloud Density	Minimum Point Density: ≥ 10 points/m ² for terrain surveys involving LiDAR data acquisition.
Feature Extraction Precision	<ul style="list-style-type: none">- Minimum 95% Feature Extraction Completeness for topographical, cadastral, and infrastructural features.- Feature Accuracy: ≤ 15 cm RMSE for extracted 2D features, ≤ 20 cm RMSE for 3D features.
Data Processing Quality	<ul style="list-style-type: none">- DEM/DSM/DTM Generation: Must be free of voids, artifacts, and inconsistencies.
	<ul style="list-style-type: none">- Feature Layer Topology: All vector layers must be topologically structured and consistent (no gaps, overlaps, dangles).
	<ul style="list-style-type: none">- Data Integration: Effective merging of point clouds, orthorectified imagery, and vector data without spatial misalignment.

Criteria	Minimum Performance Standard
GNSS Control Points Accuracy	<ul style="list-style-type: none"> - Horizontal Accuracy (GCPs & Checkpoints): ≤ 2 cm RMSE.
	<ul style="list-style-type: none"> - Vertical Accuracy (Benchmarks): First-Order Leveling: ± 4 mm/K; Second-Order Leveling: ± 12 mm/K; Third-Order Leveling: ± 25 mm/K where K is distance in km.
GIS Database Standards	<ul style="list-style-type: none"> - All extracted features should be integrated into a GIS database compatible with OGC standards.
	<ul style="list-style-type: none"> - Acceptable formats include: CityGML, GeoTIFF, SHP, LAS/LAZ, GDB, GPKG, OBJ, FBX,etc.
	<ul style="list-style-type: none"> - Metadata files must accompany all deliverables.
Georeferencing Accuracy	<ul style="list-style-type: none"> - Transformation Accuracy: ≤ 10 cm RMSE for legacy maps transformed to WGS-84.
Deliverable Quality Assurance	<ul style="list-style-type: none"> - All data deliverables must pass the Quality Control Requirements (QCR) before final submission.
Data Security & Integrity	<ul style="list-style-type: none"> - All deliverables must be securely transferred using encrypted data transmission protocols (e.g., HTTPS, SFTP).
	<ul style="list-style-type: none"> - Data integrity must be verified through checksum validation (MD5, SHA-256, etc.).

1.2. Specific Performance Criteria by Service Category

In addition to the general criteria, the following specific standards apply to individual categories of services:

Service Category	Specific Performance Requirements
Drone Services for ORI & DSM Generation	<ul style="list-style-type: none"> - GSD (Ground Sampling Distance): ≤ 5 cm.
	<ul style="list-style-type: none"> - Horizontal Accuracy: ≤ 10 cm RMSE.
	<ul style="list-style-type: none"> - Vertical Accuracy (DSM/DTM): ≤ 25 cm RMSE.
Drone Services for 3D City Models	<ul style="list-style-type: none"> - LoD-1 / LoD-2 Models: High-resolution textures and mesh models.
	<ul style="list-style-type: none"> - Spatial Accuracy: ≤ 10 cm RMSE.
	<ul style="list-style-type: none"> - 3D Model Completeness: $\geq 95\%$ of required features.

Service Category	Specific Performance Requirements
LiDAR-Based Terrain Surveys	- Point Cloud Density: ≥ 10 points/m ² .
	- Classification Accuracy: $\geq 90\%$ for terrain, buildings, vegetation separation.
	- Vertical Accuracy (DTM): ≤ 25 cm RMSE.
2D Feature Extraction Services	- Feature Accuracy: ≤ 15 cm RMSE for extracted 2D features.
	- Completeness: $\geq 95\%$ for all thematic layers (e.g., roads, parcels, utilities).
3D Feature Extraction Services	- Feature Accuracy: ≤ 20 cm RMSE for 3D vector models.
	- LoD-2 / LoD-3 Model Quality: Texturing clarity, building façade accuracy.
DSM to DTM Conversion Services	- Vertical Accuracy (DTM): ≤ 25 cm RMSE.
	- Completeness: $\geq 98\%$ bare-earth classification.
Geo-Positioning Services (Horizontal Control)	- Horizontal Accuracy (GCPs & Checkpoints): ≤ 2 cm RMSE.
	- Redundancy Check: Minimum of 3 observations per control point.
Geo-Positioning Services (Vertical Control)	- Leveling Accuracy: As per First, Second, and Third-Order standards.
	- Misclosure Calculation: Ensuring compliance with allowable limits.
Georeferencing Services	- Transformation Accuracy: ≤ 10 cm RMSE for legacy data conversion.
	- Edge Matching: Ensuring seamless alignment of adjacent maps.

1.3. Monitoring & Evaluation of Performance

Performance Evaluation Reports (PER):

- All deliverables will be evaluated against the performance standards listed above.
- Each **Performance Evaluation Report (PER)** will include:
 - Accuracy metrics, completeness, consistency, and adherence to specifications.

- Description of anomalies and corrective actions taken (if any).

Non-Compliance & Penalties:

- Failure to meet the specified performance standards may result in:
 - **Rejection of Deliverables.**
 - **Request for Rework at the Service Provider's expense.**
 - **Reduction in Empanelment Status or Termination of Empanelment (for repeated non-compliance).**

2. Overview of QA/QC Process

Quality Assurance and Quality Control (QA/QC) in geospatial data production is a structured, multi-stage process designed to ensure the accuracy, reliability, and completeness of all deliverables. The QA/QC process encompasses **planning, data acquisition, processing, extraction, integration, and final validation**.

2.1. Multi-Stage QA/QC Process

The QA/QC process comprises the following **six critical stages**:

Stage 1: Pre-Data Acquisition QA/QC (Survey Planning & Calibration)

This stage ensures that all preparations are made to achieve the desired accuracy and completeness of the data collection.

Survey Planning:

- Preparation of detailed **Survey Design Plans**, including flight paths, control point distribution, area of interest (AOI), and desired accuracy levels.
- Definition of the required **Ground Control Points (GCPs)** and **Checkpoints (CPs)** layout.
- Preparation of **Flight Planning Documents** specifying altitude, speed, overlap, camera settings, and GNSS receiver configurations.

Sensor Calibration & System Validation:

- Calibration of all sensors (UAVs, Aircraft, LiDAR Systems, GNSS Receivers, Cameras) before deployment.
- Verification of **sensor alignment, resolution, and accuracy specifications**.
- Maintenance of calibration logs for each equipment used.

Pre-Deployment Checks:

- Ensuring compliance with all **DGCA regulations and necessary permissions**.
- Ensuring that the project team is trained and equipped for the task.

Stage 2: In-Flight Data Acquisition QA/QC (Real-Time Quality Monitoring)

This stage focuses on **ensuring data quality during the actual data acquisition process**.

Flight Monitoring:

- Monitoring real-time **flight parameters**, including altitude, speed, overlap, and GNSS signal quality.
- Verification of **image exposure, coverage, and quality** during flight missions.
- Checking **LiDAR sensor performance**, including pulse rate, point density, and accuracy.

Real-Time Data Verification:

- Assessing the **consistency of GCPs and Checkpoints during data capture**.
- Identifying any discrepancies or equipment malfunctions.
- Conducting **preliminary checks on collected data** to ensure adequacy before leaving the site.

Stage 3: Post-Data Acquisition QA/QC (Data Completeness & Integrity Check)

This stage ensures that the data collected meets the initial requirements before proceeding to further processing.

Data Integrity Verification:

- Checking for **missing data, incomplete coverage, or faulty recordings**.
- Validating data completeness against the defined **Area of Interest (AOI)**.

Pre-Processing Quality Checks:

Checking **GNSS data integrity and baseline processing** (for RTK/PPK data).

- Ensuring all raw data is stored securely in **NAS Boxes or Cloud Storage**.
- Ensuring **metadata files are generated and correctly formatted**.

Stage 4: Data Processing QA/QC (Transformation & Product Generation)

This stage ensures accurate conversion of raw data into final deliverables.

Data Transformation & Processing:

- Processing of **orthophotos, DSMs, DTMs, point clouds, and 3D models** using dedicated software (AgisoftMetashape, Leica Cyclone or equivalent software with similar capabilities).).
- **Coordinate Transformation:** Ensuring accurate conversion to WGS-84 or the required projection system.

Error Detection & Correction:

- Identification of **artifacts, misalignments, and gaps** in processed data.
- Implementation of **topology checks and data smoothing algorithms**.

Quality Control Reports (QCR):

- Generation of QCRs to document data integrity, accuracy metrics (RMSE), and completeness.
- Ensuring all deliverables comply with the specified standards.

Stage 5: Feature Extraction & GIS Integration QA/QC (Accuracy Validation & Integration)

This stage ensures the accuracy of extracted vector data and its proper integration with GIS systems.

Feature Extraction QA/QC:

- Verification of **2D and 3D feature extraction accuracy** against specified benchmarks (e.g., 95% completeness, ≤ 15 cm RMSE for 2D, ≤ 20 cm RMSE for 3D).
- Ensuring **edge matching, topology correction, and attribute integrity**.

GIS Database Integration:

- Ensuring compatibility with **OGC standards (CityGML, GeoTIFF, SHP, LAS/LAZ)**.
- Checking for **attribute consistency and completeness**.
- Ensuring data is appropriately linked to the corresponding metadata.

Stage 6: Final Validation & Acceptance QA/QC (Independent Validation)

This stage ensures that all deliverables meet the specified requirements through independent validation by the Procuring Entity.

Independent Validation:

- Verification of **GCPs, Checkpoints, and Benchmark accuracy** by the Procuring Entity.
- Comparison of submitted data against **specifications in the RFE and QCR standards**.

Acceptance Protocols:

- Reviewing the completeness, accuracy, and quality of deliverables.
- Generation of a **Final Acceptance Report (FAR)** confirming adherence to specifications.

Non-Compliance Handling:

- Notification of the Service Provider in case of deficiencies.
- Implementation of **corrective measures** and **re-submission of deliverables**.

➤ QA/QC Check for Data Acquisition :

- For 2D mapping, **flight planning accuracy and overlap requirements vary between manned and unmanned aerial platforms due to differences in flight altitude, sensor resolution, and platform stability. Below are the recommended specifications:**

Flight Planning Accuracy for 2D Mapping

Platform Type	Forward Overlap (%)	Side Overlap (%)	Altitude Considerations
Unmanned Aerial Vehicle (UAV/RPAS)	75% – 85%	60% – 70%	Typically 100m – 400m AGL depending on sensor resolution
Manned Aircraft	60% – 70%	30% – 40%	Typically 500m – 5000m AGL depending on project requirements

➤ **Flight Planning Accuracy for 3D Mapping**

QA/QC Check	Standards to Meet	Verification Method
Flight Planning Accuracy (Manned Aerial Vehicles)	Forward overlap \geq 80%, Side overlap \geq 40% for high-resolution 3D mapping.	Flight plan validation report.
Flight Planning Accuracy (Unmanned Aerial Vehicles - UAVs/Drones)	Forward overlap \geq 70%, Side overlap \geq 50% for high-resolution 3D mapping.	UAV flight log and trajectory analysis.

QA/QC Check	Standards to Meet	Verification Method
Flight Planning Accuracy	As defined above in case of Manned and Unmanned vehicle for 3D and 2D mapping separately	Flight plan validation report.
Sensor Calibration	Radiometric and geometric calibration reports must be up-to-date.	Sensor calibration certificate.
Ground Control Point (GCP) Planning	Minimum 5 GCPs per sq. km for urban areas, 3 per sq. km for rural areas.	GCP planning report.
Survey Planning for GNSS/IMU Integration	Pre-calculated GNSS baseline error \leq 2 cm.	GNSS mission planning report.
Clearance from Authorities	DGCA/MHA clearance for aerial survey.	Submission of all required approvals.

➤ In-Flight Data Acquisition QA/QC

During aerial data collection, **real-time monitoring** is required to ensure **data completeness and accuracy**.

QA/QC Check	Standards to Meet	Verification Method
Real-Time GNSS Logging	Minimum 5 satellites visible per epoch.	GNSS data logs.
Flight Trajectory Accuracy	Deviation from planned path ≤10m horizontally .	Real-time telemetry logs.
Image Overlap Compliance	Nadir: as given above for 2D/ 3D; Oblique: as given above for 3D	Flight log validation.
Raw Image Quality	No blurring, underexposure, or overexposure.	Sample image review.
Real-Time LiDAR Data Coverage (if applicable)	No data voids in LiDAR scans.	On-site LiDAR preview.

Post-Data Acquisition QA/QC

After data collection, **raw data integrity and completeness** are verified.

QA/QC Check	Standards to Meet	Verification Method
Data Completeness	No missing flight strips, no excessive tilt, no image gaps.	Data coverage report.
Control Point Visibility	All pre-surveyed GCPs should be visible in collected images.	Random check of images.
IMU/GNSS Positional Accuracy	Positional RMS error ≤5cm horizontally, ≤10cm vertically .	GNSS/IMU data comparison.

➤ QA/QC Check for Data Processing QA/QC

Processing converts raw images and LiDAR data into **final Orthorectified maps and 3D models**.

QA/QC Check	Standards to Meet	Verification Method

QA/QC Check	Standards to Meet	Verification Method
Aerial Triangulation Accuracy	RMS error of tie points ≤ 0.5 pixels .	AT bundle block adjustment report.
DEM/DSM Accuracy	Vertical RMSE ≤ 25 cm (Indian vertical datum).	Ground-truthing with independent check points.
Orthorectified Imagery Accuracy	RMSE ≤ 10 cm (horizontal).	Ground validation using GCPs.
Point Cloud Classification (LiDAR)	At least 98% classification accuracy .	Automated classification report.

➤ QA/QC Check for **Feature Extraction & GIS Integration**

Vector layers must be checked for **completeness, topology, and correctness**.

QA/QC Check	Standards to Meet	Verification Method
Feature Extraction Completeness	>95% feature detection rate in urban areas.	Manual validation of extracted features.
Topological Integrity	No dangling nodes, overlaps, or missing connections.	GIS topology validation tool.
Attribute Accuracy	>99% attribute correctness in cadastral layers.	Manual cross-check with reference data.
3D Model Accuracy (if applicable)	3D mesh model accuracy within ± 10cm of ground truth.	Field survey validation.

➤ **Final Validation & Acceptance QA/QC**

The Procuring Entity will conduct **independent validation** before final acceptance.

QA/QC Check	Standards to Meet	Verification Method
Independent Check Points Validation	Overall RMSE ≤ 10 cm (horizontal), ≤ 25 cm (vertical).	Ground truth validation report.
Automated QA Reports	Data must pass all automated QA/QC checks.	Software-generated QA reports.

QA/QC Check	Standards to Meet	Verification Method
Final Data Submission	As per format: GEOTIFF, SHP, LAS, City GML, etc.	Review of final deliverables.

3. Performance Monitoring for Empanelled Firms

This section outlines the **phases of performance monitoring and measurement criteria** to ensure compliance with the defined standards throughout the project lifecycle. Each phase includes specific metrics, measurement criteria, and acceptable performance standards.

Phase	Monitoring Metrics	Measurement Criteria	Acceptable Performance Standards
Pre-Data Acquisition	<ul style="list-style-type: none"> - Mission Planning: Flight paths, AOI definition, data coverage plans. - Sensor Calibration: UAV/aircraft sensors, GNSS receivers, LiDAR, cameras. - Compliance Clearances: DGCA approvals, SoI, DST guidelines, project-specific permissions. - Ground Control Setup: GCP/CP planning and validation. 	<ul style="list-style-type: none"> - Review of Survey Design Plans, Calibration Logs, Flight Permissions, GCP Layout Plans. - Verification of documentation, safety protocols, and equipment readiness. 	<ul style="list-style-type: none"> - 100% compliance with DGCA, DST, and SoI guidelines. - All calibration records and mission plans are accurate and approved.
Data Acquisition	<ul style="list-style-type: none"> - Data Completeness: Ensuring full coverage of AOI as per project specifications. - Flight Adherence: Adherence to predefined flight paths and parameters. - Image Quality: Clarity, exposure, resolution, overlap, and coverage. 	<ul style="list-style-type: none"> - Review of GNSS Logs, Telemetry Data, Raw Image Quality, Overlap Assessments. - Real-time monitoring of flight parameters. 	<ul style="list-style-type: none"> - ≥ 95% valid data capture per flight mission. - ≥ 98% image clarity, completeness, and overlap. - ≤ 10 m horizontal deviation from planned flight path.

Phase	Monitoring Metrics	Measurement Criteria	Acceptable Performance Standards
	- GNSS/IMU Accuracy: High-precision positioning for aerial data.		
Data Processing	<ul style="list-style-type: none"> - Elevation Model Generation: Creation of DSM, DTM, and DEM. - Point Cloud Classification: Separation of ground and non-ground features. - Georeferencing: Accuracy of GCPs, CPs, and transformed datasets. - Data Integration: Merging of datasets (LiDAR, imagery, GIS). 	<ul style="list-style-type: none"> - Comparison against Ground Control Points (GCPs), Checkpoints (CPs), QA Reports, Automated Processing Checks. - Use of RMSE calculations and quality control algorithms. 	<ul style="list-style-type: none"> - Vertical Accuracy (DEM/DTM/DSM): $\leq 25 \text{ cm RMSE}$. - Point Cloud Classification Accuracy: $\geq 98\%$ correctness. - Geo-referencing Accuracy: $\leq 2 \text{ cm RMSE}$ for GCPs, $\leq 10 \text{ cm RMSE}$ for transformed datasets.
Feature Extraction & GIS Integration	<ul style="list-style-type: none"> - Feature Detection & Extraction: 2D and 3D vectorization accuracy. - Topology Integrity: No gaps, overlaps, or errors in vector datasets. - Attribute Consistency: Proper labeling and classification of extracted features. - GIS Database Integration: Compliance with OGC standards. 	<ul style="list-style-type: none"> - Review of GIS topology checks, attribute validation, comparison with field data. - Analysis of attribute consistency and completeness. 	<ul style="list-style-type: none"> - Feature Detection Rate: $\geq 95\%$ completeness. - No Topology Errors: (No gaps, overlaps, or dangles). - Attribute Accuracy: $\geq 99\%$.
Final Validation & Acceptance	<ul style="list-style-type: none"> - Overall Project Compliance: Verification of deliverables against specified requirements. - Client Satisfaction: Ensuring that all requirements have been fulfilled as per the RFE. - Defect Correction: Addressing any identified errors or inconsistencies. - Independent Validation: Evaluation by the Procuring Entity. 	<ul style="list-style-type: none"> - Independent verification of deliverables by the Procuring Entity. - Field validation, external QA audit, comparison with QCR standards. - Generation of Final Acceptance Report (FAR). 	<ul style="list-style-type: none"> - 100% compliance before project sign-off. - All corrections completed within 15 days of feedback. - Acceptance Certificate issued by Procuring Entity upon approval.

4. Empanelment Review Mechanism

The Empanelment Review Mechanism establishes a structured framework to assess the **class-wise performance** of empanelled firms periodically. It ensures that all firms, irrespective of their class (C, B, A, A+), consistently meet the technical, operational, and quality standards required for their category and scale of service delivery.

4.1 Empanelment Review Process:

Frequency of Review:

- A formal **Performance Review** will be conducted **every six (6) months** by the State Geospatial Directorate (SGD).

- Review will assess both **ongoing and completed projects** during the evaluation period, with emphasis on **class-specific resource commitments and delivery capacity**.
- Empanelment class upgradation will be permitted upon submission of updated turnover and equipment availability documents. Downgrade of empanelment class may occur based on:
 - 2 consecutive QC rejections,
 - delays of more than 60 days in project delivery, or
 - consistent non-performance across two or more projects.

Class-Wise Applicability:

- Class **A and A+ firms** will be reviewed based on larger project executions and higher resource scaling commitments.
- Class **C and B firms** will be reviewed for accuracy, timeliness, and consistent adherence to their lower but committed scale of operations.
- Class-based **scaling thresholds** (as defined under Section VIII) will serve as benchmarks for performance comparison during the review.

Review Parameters:

- **Project Execution Records:** Analysis of deliverables with respect to class-specific minimum resource deployment (personnel, UAVs, processing units).
- **Performance Evaluation Reports (PER):** As per the Quality Control Requirements (QCR) for each category.
- **Compliance with Accuracy Standards:** Horizontal and vertical RMSE compliance per service category.
- **Timely Completion:** As per class-wise resource availability and declared completion plans.
- **Client Feedback:** Quality of execution, professionalism, responsiveness.

Outcome of Performance Review:

- **Automatic Renewal:** For firms exceeding performance benchmarks appropriate to their class.
- **Warning & Corrective Actions:** Issuance of **Performance Improvement Notice (PIN)** for minor deviations, with re-evaluation in the next cycle.
- **Removal from Empanelment:** For sustained non-compliance or failure to meet class-specific deliverable commitments, especially where a firm fails to scale up/down appropriately or misrepresents resources.

4.2 Performance-Based Renewal Criteria

Eligibility for Renewal:

- **Project Completion Requirements:**
 - Minimum **two (2) completed projects** per service category within each **six-month period**.
 - Class A/A+ firms are expected to handle **larger area projects** and show **multi-site execution** where applicable.
- **Compliance with QCR:** All deliverables must meet or exceed accuracy and completeness benchmarks as per ASPRS standards where applicable.
- **Resource Verification:** Class-based equipment and personnel scaling must be demonstrably sustained.

Technical and Operational Capability:

- Demonstrated availability of qualified key personnel and functioning equipment as declared in Form 3.3 and 3.4.
- Ability to scale up for larger or time-critical projects, especially for **Class A and A+** firms.

4.3 Renewal Process & Documentation

Application & Notification:

- Firms eligible for **automatic renewal** will be notified formally.
- Firms not qualifying for automatic renewal may still apply for **performance-based renewal** with justification.

Performance Review Report (PRR):

- SGD will prepare a **comprehensive report** for each firm, covering all empanelled service categories.
- Firms will be given the opportunity to respond to observations before final decisions are made.

Renewal Duration:

- Renewal will extend the empanelment by another **three (3) years** from the original expiry.
- Firms with unresolved PINs or serious non-performance may face empanelment **termination or downgrade** to a lower class.

4.4 Monitoring & Reassessment

Continuous Monitoring:

- Ongoing project performance and adherence to class-based deployment will be tracked.
- Any major deviation in declared vs. deployed equipment/personnel may trigger a spot review.

Reassessment:

- Firms issued **PINs** will be reassessed based on compliance actions taken.
- Firms that fail to demonstrate credible improvement will be subject to **empanelment termination, blacklisting, or reclassification to a lower class**.

5. Compliance and Regulatory Requirements

5.1. Mandatory Compliance Standards

Empanelled firms must comply with:

- **National Geospatial Policy-2022**
- **Drone Rules-2021**
- **Guidelines for Acquiring & Producing Geo-Spatial Data (DST, GoI)**

Failure to comply will lead to:

- ✓ **Immediate suspension from empanelment.**
- ✓ **Disqualification from future financial bids.**

6. Penalty Mechanisms for Non-Performance (During Empanelment)

The following penalties shall apply for any non-compliance or misrepresentation by technically empaneled firms **during the validity of empanelment**, irrespective of project-specific financial engagements.

Failure Type	Penalty / Consequence
Failure to meet declared technical accuracy standards during project execution (as verified by QC/QA reports)	May result in suspension of empanelment for the concerned category until revalidation is completed.
Delay in submission of technical deliverables (in any future project post empanelment)	Performance warning letter issued; recurring delays may lead to downgrade or removal from empanelment .
Failure to rectify identified defects after QA audit (technical deficiencies, data errors, etc.)	May result in temporary suspension from new project invitations until compliance is demonstrated.
Misrepresentation of technical capabilities, personnel, or equipment	Immediate removal from empanelment , and blacklisting from future RFE or RFPs of the Procuring Entity.
Non-compliance with Government of India regulations (Drone Rules, Geospatial Guidelines)	Termination of empanelment and notification to concerned regulatory agencies.

7. Performance Recognition for High-Quality Firms (Non-Monetary Incentives)

To promote excellence among empaneled firms, the following non-financial incentives may be offered by the Procuring Entity during the empanelment period:

Performance Condition	Non-Financial Incentive
Consistent submission of high-quality, technically sound deliverables	Preferential technical ranking in project-based financial RFPs (subject to fair competition principles).
Zero-defect compliance in all QA/QC audits across projects	Recognition certificate from the State Geospatial Directorate; eligible for fast-track renewal .
Sustained high performance across all service categories over 3 years	Automatic renewal of empanelment without fresh technical evaluation for the same categories.
100% compliance with DGCA, DST, and national technical standards	Eligibility for nomination to premium or pilot projects led by the State/Survey of India.

8. Final Acceptance and Compliance Verification

- **All deliverables will be reviewed for accuracy, completeness, and compliance.**
- **Procuring Entity has the right to conduct third-party validation.**
- **Only technically qualified firms will be eligible for project-based financial bidding.**

9: Responsibilities

➤ Service Provider Responsibilities

The Service Provider shall be responsible for:

a) Regulatory Clearances and Compliance

- Obtaining all **requisite clearances** for aerial flying, **RPAS/Drones, aircraft, and sensor equipment** as per the **Drone Rules 2021**, DGCA guidelines, and applicable geospatial regulations.
- Ensuring compliance with **Geospatial Guidelines for acquiring and producing geospatial data** and **National Geo-Spatial Policy-2022**.
- Submitting necessary **documentation for clearances from Government of India (GoI) agencies** for flying over the survey area and conducting aerial data acquisition.
- Strictly adhering to DGCA-issued guidelines regarding the **operation of Civil Remotely Piloted Aircraft System (RPAS) or other aerial platforms and sensors** used for data acquisition.

b) Local Coordination and Office Setup

- Establishing a **local operational office at the designated Survey of India Geospatial Directorate (GD)** to facilitate coordination, data acquisition, processing, and interaction with Sol officials.
- The local office should be equipped with the **necessary infrastructure, computing resources, and communication facilities** for efficient operations.
- Appointing an on-site **Project Coordinator** at the local office for regular interaction with the Survey of India and Geospatial Directorate teams.

c) Data Acquisition and Processing

- Planning and executing **flight missions** in coordination with Sol and ensuring **strict adherence to the planned flight paths** and acquisition specifications.
- Performing **pre-flight testing, sensor calibration, and quality assurance (QA)** for aerial data collection.
- Conducting **post-processing of aerial imagery and geospatial datasets** as per **technical specifications** outlined in the RFE.
- Implementing **stringent QA/QC procedures** for all deliverables, ensuring they meet the specified accuracy and quality benchmarks.
- Delivering both **raw and processed data**, including Digital True Ortho-imagery, DEM, DSM, DTM, and vector feature extractions.

d) Compliance and Security Measures

- Maintaining **full data security and confidentiality** as per Sol's geospatial data handling policies.
- Restricting data access to **authorized personnel only** and ensuring that data is processed within secure facilities.
- Ensuring that **all personnel deployed for the project are vetted and approved** for access to sensitive geospatial data.

e) Training and Support

- Conducting training sessions for Sol officials and stakeholders on **data interpretation, feature extraction, and GIS integration**.

- Providing **post-delivery support and defect rectification assistance** for at least one year after data acceptance.
- Offering **technical hand-holding support** to **State/City ground truthing teams** for data validation and usage.

10. Employer Responsibilities (Survey of India / Procuring Entity)

The Survey of India (Sol) shall be responsible for:

a) Regulatory Support and Facilitation

- Facilitating interactions with **GoI agencies and state-level authorities** to streamline survey approvals.
- Processing clearance applications for **aerial survey activities** and assisting with permissions required from civil authorities.
- Coordinating with local **state and urban authorities** to facilitate smooth execution of survey operations.

b) Data and Infrastructure Support

- Providing access to **Survey of India's CORS (Continuously Operating Reference Station) network** for GNSS-based **Ground Control Data**.
- Issuing **authorization letters** to local civil authorities to ensure smooth field survey operations.
- Facilitating **entry permissions to restricted zones and other necessary authorizations** required for data acquisition.

c) Project Oversight and Quality Assurance

- Establishing a **Technical Review Committee** to oversee and evaluate deliverables, recommend corrections, and ensure compliance with technical standards.
- Conducting **QA/QC reviews of digital products** before acceptance, including accuracy validation and compliance checks.
- Providing structured feedback on deliverables to enable necessary corrections by the Service Provider.

d) Financial Management and Monitoring

- **Releasing funds and reviewing reports** according to the agreed work schedule and payment milestones.
- Ensuring **timely payments** upon successful completion of defined milestones and acceptance of deliverables.

e) Coordination and Communication

- Appointing a **nodal officer** at each Geospatial Directorate (GD) to coordinate activities, address technical queries, and ensure uninterrupted project execution.
- Facilitating periodic review meetings with Service Providers for progress tracking and issue resolution.

f) Additional Support

- **Providing relevant base maps or existing geospatial datasets** (if available) to aid the mapping process.
- Supporting the Service Provider in **addressing technical and procedural challenges** encountered during project execution.
- Any other **mutually agreed upon facilities and resources** required for the successful completion of the project.

11. Mutual Responsibilities of Both Parties

- Ensuring **adherence to project timelines** and maintaining a high standard of **data accuracy and quality**.
- Collaborating on **field verification and ground truthing activities** to validate acquired data.
- Resolving disputes through **joint consultations and structured review mechanisms**.
- Maintaining transparency and accountability in **all project-related communications and documentation**.

- **Schedule VII-1: Method Statement**

Not applicable

Schedule VII-2: Work Plan

Not applicable

Schedule VII-3: Critical Material Schedule

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

(Ref ITB-clause 9.2)

Note for Bidders:

- • This schedule specifies the minimum class-based quantity of critical materials required to be technically qualified for empanelment under each service category.
- • Bidders must demonstrate access to or ownership of the listed materials based on the class they are applying for (Class C, B, A, or A+).
- • These quantities are minimum thresholds for technical qualification. Final project-specific requirements will be detailed during financial bidding.
- • Firms must furnish valid ownership documents or live lease agreements for all listed equipment and software.
- • Fuel, maintenance, and operational consumables are excluded and will be addressed during project-specific financial proposals.

Class-Based Minimum Critical Equipment Requirements

Key Considerations for Project-Based Execution

- Scalability: Quantities listed above are **class-wise minimum thresholds for empanelment**. Actual project requirements may be higher.
- Proof of Access: Ownership is not mandatory. Live lease agreements (minimum 12 months) or MoUs with equipment providers will also be accepted.
- Flexibility: The number and deployment of equipment and personnel may vary at the project stage and shall be finalized via financial bidding.

Class-Based Minimum Critical Equipment Requirements

Item Sr.	Description/Category	Minimum Specifications/Requirements	Class C	Class B	Class A	Class A+	Remarks (Project-Specific Adjustments)
1	Aerial Platform (Manned/Unmanned)	UAVs or Aircraft capable of carrying required sensors for 2D/3D mapping	3 UAVs	5 UAVs	12 UAVs	20 UAVs or 1 Aircraft/Helicopter	More UAVs or aircraft may be required based on AOI and

							timeline.
2	Imaging Sensors	- Nadir Camera (\leq 5 cm GSD) - Oblique Camera (4 Oblique + 1 Nadir) - LiDAR Sensor (DSM/DTM/3D Models)	At least 3 Nadir / at least 2 Oblique(if bidding for 3D Mapping) / At least 2 LiDAR Sensors(If bidding for LiDAR Services)	At least 5 Nadir / at least 3 Oblique(if bidding for 3D Mapping) / At least 3 LiDAR Sensors(If bidding for LiDAR Services)	At least 12 Nadir / at least 5 Oblique (if bidding for 3D Mapping) / At least 5 LiDAR Sensors(If bidding for LiDAR Services)	At least 20 Nadir / at least 8 Oblique (if bidding for 3D Mapping using Drones) / At least 8 LiDAR Sensors(If bidding for LiDAR Services using drones) or 2 each type of sensors if platform used is Air Craft/ Helicopter	For 3D and LiDAR categories, firms must show proof of access to respective sensors.
3	GNSS and IMU Systems	High-precision GNSS & INS for geo-referencing	3 GNSS + 1 INS	5 GNSS + 1 INS	12 GNSS + 2 INS	20 GNSS + 3 INS	Required for aerial triangulation accuracy in large-scale projects.
4	Ground Control Equipment	GNSS receivers, base stations, survey-grade total stations	3 GNSS Base + 1 Digital Level	5 GNSS Base + 2 Digital Level	10 GNSS Base + 2 Digital Level	15 GNSS Base + 4 Digital Level	Used for establishing accurate GCPs during project execution.
5	Processing Software	Photogrammetry & LiDAR processing software (Pix4D, AgisoftMetashape, TerraScan or equivalent	3 Licenses	5 Licenses	10 Licenses	15 Licenses	Must provide valid license or subscriptio

		software with similar capabilities)					n proof.
6	GIS & Feature Extraction Tools	2D/3D vectorization and GIS dataset tools	10 Seats	20 Seats	30 Seats	40 Seats	Software must support Sol-defined data schemas.
7	Data Storage & Backup	Secure NAS/cloud infrastructure for storing large datasets	20TB	50TB	80TB	150TB+	Cloud-based storage also acceptable if access is proven.
8	QA/QC Tools	Tools for verifying spatial accuracy and feature completeness	Basic Tools	Intermediate Suite	Advanced Suite	Enterprise-Level Suite	Should support automated RMSE, overlap, and classification verification.
9	Personnel Safety Equipment	DGCA-approved UAV pilot kits, safety harnesses	Standard PPE	Standard PPE	Enhanced Kit	Aviation-Grade Compliance Kit	Mandatory compliance with DGCA aviation safety norms.
10	Data Security & Compliance	Systems ensuring compliance with Geo-Spatial Data Guidelines 2022 & Drone Rules 2021	Encryption + Access Logs	Audit-Trail Enabled	Enterprise Security	Govt-Certified Data Vaults	Must include secure access control, encrypted transfer protocols, and audit logs.

Section VIII: Qualification Criteria

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Note for Bidders

Bidders must submit the following forms to demonstrate technical capability, financial capacity, and compliance with eligibility requirements. All forms must be complete and accompanied by valid supporting documents.

1. Experience and Past Performance

Bidders must demonstrate successful or substantially completed ($\geq 80\%$ payment received) execution of similar geospatial service contracts within the last Three (3) years, corresponding to the service categories they are applying for. Work experience not related to geospatial services will not be considered.

Category-Wise Experience Matrix with Class-Based Thresholds:

Category No.	Service Category	Scope of Work	Required Experience	Minimum Work Experience Requirement (By Class)
1	Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)	Aerial survey using drones with nadir cameras for ORI and DSM generation	Experience in aerial imagery capture, processing, and 2D/3D feature extraction using aerial platforms	Class C: 2 projects $\geq ₹25L$ each OR 1 project $\geq ₹50L$ Class B: 3 projects $\geq ₹50L$ each OR 1 project $\geq ₹150L$ Class A: 4 projects $\geq ₹100L$ each OR 1 project $\geq ₹400L$ Class A+: 5 projects $\geq ₹200L$ each OR 1 project $\geq ₹1000L$
2	Drone Services for 3D City Model	Aerial survey using drones with oblique cameras (1 nadir + 4 oblique) for 3D mesh modeling and DSM	Experience in aerial photogrammetry and land parcel mapping	Class C: 2 projects $\geq ₹25L$ each OR 1 project $\geq ₹50L$ Class B: 3 projects $\geq ₹50L$ each OR 1 project $\geq ₹150L$ Class A: 4 projects $\geq ₹100L$ each OR 1 project $\geq ₹400L$ Class A+: 5 projects $\geq ₹200L$ each OR 1

				project \geq ₹1000L
3	Drone Services for ORI and Terrain Survey using LiDAR	UAV survey using nadir cameras and LiDAR for ORI, DSM, and terrain mapping	Experience in aerial photogrammetry and LiDAR-based terrain mapping	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	Aerial flying with aircraft/helicopters equipped with nadir and LiDAR sensors	Experience in aerial photogrammetry and land parcel mapping for rural areas	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L
5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	High-resolution 3D city mesh modeling using aircraft with oblique + LiDAR sensors	Experience in LiDAR/IFSAR-based terrain mapping in complex terrain	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L
6	2D Feature Extraction Services	Extraction of 2D vector data from orthorectified imagery	GIS-based 2D mapping and digitization experience	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1

				project ≥ ₹150L Class A: 4 projects ≥ ₹100L each OR 1 project ≥ ₹400L Class A+: 5 projects ≥ ₹200L each OR 1 project ≥ ₹1000L
7	3D Feature Extraction and Vector Model Services	3D vector data modeling using stereo andmesh inputs	Experience in LiDAR/stereo photogrammetry-based 3D feature extraction	Class C: 2 projects ≥ ₹25L each OR 1 project ≥ ₹50L Class B: 3 projects ≥ ₹50L each OR 1 project ≥ ₹150L Class A: 4 projects ≥ ₹100L each OR 1 project ≥ ₹400L Class A+: 5 projects ≥ ₹200L each OR 1 project ≥ ₹1000L
8	DSM to DTM Conversion Services	Filtering and ground classification of point cloud or surface models	Experience in terrain classification and DTM generation	Class C: 2 projects ≥ ₹25L each OR 1 project ≥ ₹50L Class B: 3 projects ≥ ₹50L each OR 1 project ≥ ₹150L Class A: 4 projects ≥ ₹100L each OR 1 project ≥ ₹400L Class A+: 5 projects ≥ ₹200L each OR 1 project ≥ ₹1000L
9	Geo-Positioning Services - Horizontal Control	Establishment of GNSS-based horizontal ground control networks	Experience in GNSS survey and geo-referencing	Class C: 2 projects ≥ ₹25L each OR 1 project ≥ ₹50L Class B: 3 projects ≥ ₹50L each OR 1 project ≥ ₹150L Class A: 4 projects ≥ ₹100L each OR 1 project ≥ ₹400L Class A+: 5 projects ≥ ₹200L each OR 1

				project \geq ₹1000L
10	Geo-Positioning Services - Vertical Control	High-precision leveling and benchmark establishment	Experience in leveling survey and vertical control	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L
11	Georeferencing Services	Georeferencing of legacy raster or vector maps to WGS-84 datum	Experience in datum transformation and image control point alignment	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L

Important Instructions:

- Projects must have been completed or \geq 80% completed within the last 3 years from the date of bid submission.
- Work Completion Certificates must clearly state the scope of work, project area, and value of work executed.
- Work executed for Central/State Government, PSUs, or listed private companies shall be considered. International projects shall also be considered.
- The minimum project value and number of projects must be satisfied for each category-class combination.
- If a bidder submits only one project, it must meet the cumulative value threshold for that class.
- Firms currently executing Survey of India contracts with satisfactory performance (minimum 80% evaluation score) may be considered for Class C empanelment with relaxation in project volume criteria only. Such firms must still meet all other qualification requirements including financial, manpower, equipment, and certifications
- Multiple smaller orders executed within the same category in a 12-month window may be aggregated for experience evaluation, provided the total value exceeds the minimum threshold.

Mandatory Form to be Submitted:

- Form 4.1: Performance Statement
- This form must be filled category-wise.
- For each listed project, include:
 - Client Name and Address
 - Contract Reference and Title
 - Total Value
 - Project Area (in sq. km)
 - Start and End Dates
 - Scope of Services Provided
 - Status (Completed/Ongoing)
- Attach:
 - Work Completion Certificate
 - Client Feedback/Testimonial (if available)
 - Project Maps or Sample Outputs (optional but encouraged)

2. Technical Qualification Requirements

This section outlines the class-based minimum requirements for key personnel and critical equipment under each service category. Bidders must meet the threshold corresponding to the class (C, B, A, A+) for which they are applying.

Please refer to the relevant Class-Based Equipment and Personnel Deployment Table in Section VIII-2 for full category-wise requirements.

Required Form: Form 3.3 – Personnel Deployment Plan

Required Form: Form 3.4 – Equipment Deployment Plan

3. Technical Evaluation Framework

Technical Evaluation under this RFE will be entirely document-based. No field or lab demonstrations are required. Evaluation shall be conducted on a pass/fail basis against mandatory qualification requirements for each service category.

The evaluation will rely on category-specific verification checklists and substantiating documents submitted by the bidder.

Evaluation Criteria and Documentation Requirements

Evaluation Parameter	Minimum Requirement for Pass	Required Evidence
Past Work Experience	Must meet class-specific thresholds for project value	Work Orders, Completion

	and quantity as per Section VIII.1	Certificates, Project Reports
Sample Data Submission	Valid and complete sample datasets for the category applied (e.g., ORI, DSM, LAS, SHP, DTM)	Sample Outputs in required format with metadata
Accuracy & QA/QC Reports	Accuracy levels as per technical specifications of the service category	QA Reports, Accuracy Reports, Checkpoint Validation Reports
Personnel Availability	Minimum required number of trained personnel for the applied class and category	Form 3.3 (Personnel Deployment Plan), CVs, Qualifications
Critical Equipment Access	Proof of ownership or valid lease (≥ 12 months) for category-specific equipment	Form 3.4 (Equipment Deployment Plan), Lease/Ownership Documents
Client Feedback / References	At least one client feedback or reference letter per claimed work	Feedback Letters, Performance Certificates

Pass/Fail Determination:

- Pass: All mandatory documentation and threshold criteria are met for the selected class and category.
- Fail: Any one of the required documents is missing, incomplete, or does not meet the minimum threshold.

Note: In case of discrepancies in documents, the Procuring Entity may seek clarifications but reserves the right to reject bids lacking essential compliance.

Required Forms for Technical Evaluation

- Form 4.1: Performance Statement (Category-wise)
- Form 3.3: Personnel Deployment Plan (with CVs)
- Form 3.4: Equipment Deployment Plan
- Category-wise Sample Data Package: ORI, DSM, LAS, DTM, SHP files, etc.

Category No.	Service Category	Minimum Data Sample/Document Requirements
1	ORI & DSM (Drone)	ORI mosaic, DSM raster, Accuracy Report (RMSE < 10 cm), Flight Log

2	3D City Model (Drone)	Oblique mosaic, City Mesh sample, Textured OBJ, Metadata
3	Drone + ORI and /or LiDAR Survey	Orthoimage tiles .Classified LAS, DTM/DSM, GCP-Check RMSE Report
4	Manned Aerial ORI / LiDAR	Orthoimage tiles, DTM/DSM, Flight Plan, Equipment invoice
5	3D City Model (Manned)	CityGML/IFC Model, Oblique Imagery, Sensor Log
6	2D Feature Extraction	SHP files, Topology Report
7	3D Feature Extraction	LoD-2 Models, Stereo Imagery, Accuracy Validation
8	DSM to DTM Conversion	DSM, DTM, Classified LAS File, Slope Map
9	Horizontal Control	GNSS Observation Sheet, Baseline Report
10	Vertical Control	Digital Leveling Logbook, Benchmark Report
11	Georeferencing	Legacy map (pre), Referenced raster/post-map, GCP Report

- QA/QC Reports: Checkpoint validation reports, Error Metrics
- Client Feedback: Certificate or letter from client validating performance
- Compliance Declarations (where applicable)

4. Financial Capability

Financial strength will be assessed based on audited financials and liquidity capacity, class-wise, with thresholds defined for turnover, net worth, debt ratio, and access to cash or working capital.

Only Revenue from geospatial services will be considered. Additionally, revenue from IT/ITES activities directly related to geospatial application development and GIS solutions shall also be considered, subject to certification by a Chartered Accountant. Firms must submit a Chartered Accountant certificate with segmented turnover declaration.

Please refer to Section VIII-3 Financial Matrix for full class-wise thresholds.

Required Form: Form 4.3 – Financial Capability Statements

5. Regulatory and Statutory Compliance

Bidders must be registered legal entities in India with valid PAN, GST, and ESI registration. Mandatory certifications include:

- ISO 9001:2015 (Quality Management)
- ISO 27001:2013 (Information Security)
- CMMI Level 3 (for Geospatial Services)

Compliance to Geospatial Guidelines 2021 and Drone Rules 2021 must be declared via self-certification.

Required Declarations and Documents: Registration Certificates, ISO certificates, GST/ESI, Compliance Undertaking

6. Required Forms

Bidders must submit the following forms as part of their technical bid:

1. Form 4 – Qualification Criteria Compliance
2. Form 4.1 – Performance Statement
3. Form 4.2 – Non-Performance & Litigation Statement
4. Form 4.3 – Financial Capability Statements
5. Form 3.3 – Personnel Deployment Plan
6. Form 3.4 – Equipment Deployment Plan

Section VIII-1: Key Personnel Schedule

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Note to Bidders:

This section outlines the minimum key personnel required for each service category under different bidder classes (Class C, B, A, A+).

Personnel deployment must be demonstrated through Form 3.3 and matched with equipment and resource availability.

All personnel qualifications, experience, and availability must be verifiable through submitted documents.

For all categories of key personnel (Project Manager, LiDAR Specialist, Photogrammetry Specialist, GIS Analyst, UAV Drone Pilot, Survey Engineer):

- Minimum qualification: Bachelor's degree in GIS, Geography, Geology, Earth Sciences, Engineering, Remote Sensing, BCA, MCA, or equivalent disciplines with relevant domain experience.
- Diploma holders with 5 years of relevant experience are also eligible.
- UAV Drone Pilots: Minimum 10th standard pass with valid DGCA RPTO certificate and at least 1 year of drone flying experience.

-For Manned Aerial Services Commercial Pilot Licence + 2 yrs flying for survey

The table below provides category-wise and class-wise minimum personnel requirements for empanelment.

Category No.	Service Category	Class	Required Personnel Roles	Minimum Required Personnel
1	Drone Services for ORI and DSM	C	Project Manager, UAV Pilots, GIS Specialist	3 UAV Pilots, 1 GIS Specialist
1	Drone Services for ORI and DSM	B	Project Manager, UAV Pilots, GIS Specialist	5 UAV Pilots, 1 GIS Specialist
1	Drone Services for ORI and DSM	A	Project Manager, UAV Pilots, GIS	12 UAV Pilots, 2 GIS Specialist

			Specialist	
1	Drone Services for ORI and DSM	A+	Project Manager, UAV Pilots, GIS Specialist	20 UAV Pilots, 3 GIS Specialist
2	Drone Services for 3D City Model	C	Project Manager, UAV Pilots, Photogrammetry Specialist, GIS Specialist	3 UAV Pilots, 1 GIS Specialist, 1 Photogrammetry Specialist
2	Drone Services for 3D City Model	B	Project Manager, UAV Pilots, Photogrammetry Specialist, GIS Specialist	5 UAV Pilots, 1 GIS Specialist, 2 Photogrammetry Specialist
2	Drone Services for 3D City Model	A	Project Manager, UAV Pilots, Photogrammetry Specialist, GIS Specialist	12 UAV Pilots, 2 GIS Specialist, 3 Photogrammetry Specialist
2	Drone Services for 3D City Model	A+	Project Manager, UAV Pilots, Photogrammetry Specialist, GIS Specialist	20 UAV Pilots, 3 GIS Specialist, 4 Photogrammetry Specialist
3	Drone Services for ORI and Terrain Survey using LiDAR	C	Project Manager, UAV Pilots, LiDAR Specialist, GIS Analyst	3 UAV Pilots, 1 LiDAR Specialist
3	Drone Services for ORI and Terrain Survey using LiDAR	B	Project Manager, UAV Pilots, LiDAR Specialist, GIS Analyst	5 UAV Pilots, 2 LiDAR Specialist
3	Drone Services for ORI and Terrain Survey using LiDAR	A	Project Manager, UAV Pilots, LiDAR Specialist, GIS Analyst	12 UAV Pilots, 3 LiDAR Specialist

3	Drone Services for ORI and Terrain Survey using LiDAR	A+	Project Manager, UAV Pilots, LiDAR Specialist, GIS Analyst	20 UAV Pilots, 4 LiDAR Specialist
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	C	Project Manager, Aircraft Pilot, GIS Specialist	1 Aircraft Pilot, 1 GIS Specialist
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	B	Project Manager, Aircraft Pilot, GIS Specialist	1 Aircraft Pilot, 1 GIS Specialist
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	A	Project Manager, Aircraft Pilot, GIS Specialist	1 Aircraft Pilot, 2 GIS Specialist
4	Manned Aerial Services for ORI and Terrain Survey using LiDAR	A+	Project Manager, Aircraft Pilot, GIS Specialist	1 Aircraft Pilot, 3 GIS Specialist
5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	C	Project Manager, Aircraft Pilot, Photogrammetry Expert	1 Aircraft Pilot
5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	B	Project Manager, Aircraft Pilot, Photogrammetry Expert	1 Aircraft Pilot
5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	A	Project Manager, Aircraft Pilot, Photogrammetry Expert	1 Aircraft Pilot
5	Manned Aerial Services for 3D City Model and Terrain Survey	A+	Project Manager, Aircraft Pilot, Photogrammetry	1 Aircraft Pilot

	using LiDAR		Expert	
6	2D Feature Extraction Services	C	Project Manager, GIS Operators, GIS Specialist	1 GIS Specialist, 20 GIS Operators
6	2D Feature Extraction Services	B	Project Manager, GIS Operators, GIS Specialist	1 GIS Specialist, 20 GIS Operators
6	2D Feature Extraction Services	A	Project Manager, GIS Operators, GIS Specialist	2 GIS Specialist, 20 GIS Operators
6	2D Feature Extraction Services	A+	Project Manager, GIS Operators, GIS Specialist	3 GIS Specialist, 20 GIS Operators
7	3D Feature Extraction and Vector Model Services	C	Project Manager, GIS Operators, 3D Specialist	20 GIS Operators
7	3D Feature Extraction and Vector Model Services	B	Project Manager, GIS Operators, 3D Specialist	20 GIS Operators
7	3D Feature Extraction and Vector Model Services	A	Project Manager, GIS Operators, 3D Specialist	20 GIS Operators
7	3D Feature Extraction and Vector Model Services	A+	Project Manager, GIS Operators, 3D Specialist	20 GIS Operators
8	DSM to DTM Conversion Services	C	Project Manager, GIS Operators, LiDAR Specialist, GIS Analyst, Geodesy Expert	1 LiDAR Specialist, 20 GIS Operators, 1 Geodesy Expert
8	DSM to DTM Conversion Services	B	Project Manager, GIS Operators, LiDAR Specialist, GIS Analyst,	2 LiDAR Specialist, 20 GIS Operators, 1 Geodesy Expert

			Geodesy Expert	
8	DSM to DTM Conversion Services	A	Project Manager, GIS Operators, LiDAR Specialist, GIS Analyst, Geodesy Expert	3 LiDAR Specialist, 20 GIS Operators, 1 Geodesy Expert
8	DSM to DTM Conversion Services	A+	Project Manager, GIS Operators, LiDAR Specialist, GIS Analyst, Geodesy Expert	4 LiDAR Specialist, 20 GIS Operators, 1 Geodesy Expert
9	Geo-Positioning Services - Horizontal Control	C	Project Manager, Survey Engineers	2 Survey Engineers
9	Geo-Positioning Services - Horizontal Control	B	Project Manager, Survey Engineers	5 Survey Engineers
9	Geo-Positioning Services - Horizontal Control	A	Project Manager, Survey Engineers	8 Survey Engineers
9	Geo-Positioning Services - Horizontal Control	A+	Project Manager, Survey Engineers	10 Survey Engineers
10	Geo-Positioning Services - Vertical Control	C	Project Manager, Survey Engineers	2 Survey Engineers
10	Geo-Positioning Services - Vertical Control	B	Project Manager, Survey Engineers	5 Survey Engineers
10	Geo-	A	Project	8 Survey

	Positioning Services - Vertical Control		Manager, Survey Engineers	Engineers
10	Geo-Positioning Services - Vertical Control	A+	Project Manager, Survey Engineers	10 Survey Engineers
11	Georeferencing Services	C	Project Manager, GIS Specialists	1 GIS Specialist
11	Georeferencing Services	B	Project Manager, GIS Specialists	1 GIS Specialist
11	Georeferencing Services	A	Project Manager, GIS Specialists	2 GIS Specialist
11	Georeferencing Services	A+	Project Manager, GIS Specialists	3 GIS Specialist

Section VIII-2: Critical Equipment Schedule

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

1. Category and Class-Based Critical Equipment Schedule

Sr. No.	Service Category	Equipment Category	Minimum Specification	Min. Quantity (C/B/A/A+)	Ownership Requirement
1	Drone Services for ORI & DSM	UAV + Nadir Camera	Type-certified UAVs with ≤ 5 cm GSD	3 / 5 / 12 / 20	Owned / Leased (≥12 months)
2	Drone Services for 3D City	UAV + Oblique	Oblique array (4 oblique + 1)	2 / 3 / 5 / 8	Owned /

	Model	Camera	nadir)		Leased
3	Drone Services for ORI andLiDAR	UAV with Nadir + LiDAR Sensor	≥10 pts/m ² point density	2 / 3 / 5 / 8	Owned / Leased
4	Manned Aerial Services	Aircraft + Nadir/Oblique/LiDAR	≤10 cm GSD nadir / ≥30 pts/m ² LiDAR	1 (all classes)	Owned / Leased / Access Agreement
5	All Applicable	GNSS Receivers (RTK/PPK)	Dual-frequency GNSS	3 / 5 / 10 / 12	Owned / Leased
6	Vertical Control	Digital Levels	Digital/Auto Level with Invar Staff	1 / 2 / 2 / 4	Owned / Leased
7	LiDAR / Photogrammetry	LiDAR Data Processing Software	Terrasolid / Leica Cyclone / TBC	1 / 3 / 5 / 10	Owned / Licensed
8	Photogrammetry	Photogrammetry Software	Agisoft / Pix4D / Inpho	2 / 5 / 10 / 15	Owned / Licensed
9	2D/3D Feature Extraction	Feature Extraction Software	ArcGIS / Bentley / CityEngine	10 / 20 / 25 / 40	Owned / Licensed
10	QA/QC & GIS	GIS Software	QGIS / ArcGIS / Global Mapper	2 / 5 / 10 / 15	Owned / Licensed
11	All Applicable	Storage & Backup	NAS / Cloud storage (scalable)	20TB / 50TB / 80TB / 150TB	Owned / Leased
12	All Applicable	Data Transfer Tools	Secure data delivery system	1 / 2 / 3 / 5	Owned / Leased

Note:

The equipment and personnel requirements mentioned above represent the minimum eligibility criteria for technical empanelment under each class and service category.

For actual project execution, a **project-specific resource assessment** shall be carried out during the financial bidding stage. The resource deployment requirements (UAVs, Pilots, Aircraft, etc.) will be computed based on:

- The **area to be covered**,
- The **project duration**, and
- The **type of sensor configuration proposed** (e.g., Nadir Camera, Oblique Camera, LiDAR)

The expected resource commitment shall be determined using the **scaling logic specified in the RFE**, which assumes the following indicative monthly coverage rates for UAVs:

Sensor Configuration	Monthly Coverage Estimate (per UAV)
Nadir Camera only	200 sq. km/month
Oblique Camera (4 Oblique + 1 Nadir)	100 sq. km/month
Nadir + LiDAR Sensor	75 sq. km/month

The final resource plan must conform to these scaling norms or justify any deviations through supporting documentation at the project bidding stage.

Manned aerial platforms will be permitted a **50% scaling adjustment**, subject to compliance with minimum platform and personnel requirements specified in the RFE

Aircraft-based firms must ensure high-speed data processing capabilities with a minimum storage capacity of 250TB per 1000 sq. km due to the high data volumes captured per sortie.

Proof of ownership or long-term lease (≥ 12 months) is mandatory for all core equipment categories.

Section VIII-3: Financial Qualification Matrix

Tender Document No.: S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

This matrix outlines the minimum financial thresholds that firms must meet to qualify for empanelment under the respective classes (C, B, A, A+). All values are in INR. Thresholds apply specifically to geospatial services and must be validated through CA-certified documents and banking references.

Sr. No.	Financial Parameter	Class C	Class B	Class A	Class A+
1	Minimum Average Annual Turnover (Past 3 Years)	₹2.5 Cr	₹5 Cr	₹10 Cr	₹50 Cr
2	Minimum % of Turnover from	$\geq 50\%$	$\geq 50\%$	$\geq 50\%$	$\geq 50\%$

	Geospatial Services				
3	Current Ratio (Current Assets / Current Liabilities)	> 1.0	> 1.0	> 1.0	> 1.0
4	Debt Ratio (Total Debt / Total Assets)	< 50%	< 50%	< 50%	< 50%
5	Net Worth Erosion (Last 3 Years)	< 30%	< 30%	< 30%	< 30%
6	Minimum Financial Liquidity (Cash / Bank / WC)	₹0.5 Cr	₹1.0 Cr	₹2.0 Cr	₹5.0 Cr
7	Estimated Project Handling Capacity (per annum)	₹1 Cr	₹3 Cr	₹6 Cr	₹30 Cr

Note:

- All financial thresholds must be supported by audited financials or certified banking references.
- Estimated Project Handling Capacity is indicative and used for future financial bidding scale validation.
- **Only turnover from geospatial services shall be considered. Revenue from unrelated domains (e.g., civil construction, IT, facility services) will not be accepted.**
- **Bidders must submit a turnover segmentation certified by a Chartered Accountant showing total vs. geospatial-only turnover for the past three financial years.**
- The audited balance sheet and banking reference certified by a Chartered Accountant with stamp, signature, and UDIN number must be submitted.
- Banking reference must be issued by a Scheduled Bank in India, not older than 3 months from the bid submission date. It should clearly state the credit amount available for geospatial services.
- If current net assets are negative, only the banking reference shall be considered. Otherwise, liquidity shall be calculated by summing current net assets and the banking reference.
- Failure to submit either audited financials or a valid banking certificate will result in disqualification.
- The statement must be countersigned by an authorized representative of the Bidder.

- In the case of a consortium or joint venture, financial qualification will be assessed for each member as per their scope of work.
- Subcontractors' financial strength will not be considered for eligibility.

BIDDING FORMS

Form 1: Bid Form (Covering Letter) for RFE

(To be submitted as part of the Technical Bid, along with supporting documents, if any)

(On Bidder's Letterhead)

(Strike out alternative phrases not relevant to you)

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date: _____

To

The President of India, through

Surveyor General of India

Survey of India

[Complete address of the Procuring Entity]

Ref: Your Request for Empanelment (RFE) Document No. T-- Dated 16-05-25

Tender Title: Request for Empanelment of Firms for Providing Geospatial Services

Sir/Madam,

Having examined the above-mentioned Request for Empanelment (RFE) document, we, the undersigned, hereby submit our application for empanelment for the provision of geospatial services in accordance with the eligibility and qualification criteria set forth in the RFE.

1) Our Credentials:

a) We are submitting this application:

- Independently, and no agents/dealers are involved in this empanelment process. There is no agency agreement or commission structure involved.
- Our firm meets all regulatory and compliance requirements as per Form 1.1 (Bidder Information).

OR

- As agents/associates of our foreign principals. All compliance documents for our foreign principal's registration, taxation, and authorization are submitted in Form 1.4 (Declaration by Agents/Associates of Foreign Principals).

b) We, (Name of Firm/Entity), certify that:

- We/ Our Principal M/s. _____ are an established and reputed firm with proven expertise in geospatial data acquisition, processing, and GIS-based solutions.

- Our company has experience in (mention specific services being applied for from the RFE service categories) and holds a strong track record in executing similar work.

2) Our Eligibility and Qualification to Participate

We confirm that we:

- Fully comply with the eligibility criteria stipulated in this RFE. The relevant declarations and supporting documents are enclosed in Form 1.2: 'Eligibility Compliance.'
- Meet the technical qualification criteria as per the requirements outlined in the RFE. The supporting documents are submitted in Form 4: 'Qualification Criteria - Compliance.'
- Authorize the Procuring Entity to verify the details with our banker(s) and references provided.

3) Our Proposal for Empanelment:

We seek empanelment for providing the following category/categories of services:

- Category 1 – Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)
- Category 2 – Drone Services for 3D City Model
- Category 3 – Drone Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR
- Category 4 – Manned Aerial Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR
- Category 5 – Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR
- Category 6 – 2D Feature Extraction Services
- Category 7 – 3D Feature Extraction and Vector Model Services
- Category 8 – DSM to DTM Conversion Services
- Category 9 – Geo-Positioning Services - Horizontal Control
- Category 10 – Geo-Positioning Services - Vertical Control
- Category 11 – Georeferencing Services

The relevant details of compliance with the empanelment requirements are submitted in Form 2: 'Schedule of Requirements - Compliance' and Form 3: 'Performance Standards and Quality Assurance - Compliance.'

4) Affirmation to Terms and Conditions of the RFE:

We confirm that:

- We fully accept and comply with all terms and conditions of the RFE.
- Any minor deviations (if applicable) are submitted separately in Form 5: 'Terms and Conditions - Compliance.'

- We agree to abide by the empanelment guidelines, performance monitoring, and quality control measures stipulated by the Procuring Entity.

5) Declaration Regarding Bid Security (BSD)

As this is a Request for Empanelment (RFE) process and no financial bid is being submitted at this stage, we understand that no financial security is required for empanelment. However, we have submitted the required Bid Securing Declaration (BSD) as per Form 7: 'Documents Relating to Bid Security.'

6) Abiding by the Empanelment Validity Period

We agree to remain empanelled for the validity period specified in the RFE, which is three (3) years from the date of empanelment, subject to compliance with performance requirements and other terms of empanelment.

7) Non-Tampering of RFE Document and Uploaded Scanned Copies

We certify that:

- We have not altered or edited the downloaded RFE document in any manner.
- Any tampering found at any stage shall be liable for punitive action, as per the terms of the RFE.
- All scanned copies of documents, affidavits, and undertakings uploaded with our application are true, correct, and valid to the best of our knowledge.

We undertake to submit original documents for verification upon request by the Procuring Entity.

8) Empanelment and Project-Based Financial Bidding

- We acknowledge that empanelment does not guarantee any financial award but qualifies us to participate in project-based financial bids issued by the Procuring Entity.
- We confirm that we shall comply with the subsequent Project-Specific RFPs, as and when issued, for financial participation.

9) Performance Guarantee (For Future Contracts)

We understand that upon award of any project through a project-based RFP, we shall provide a Performance Guarantee as stipulated in the respective contract.

10) Authorized Signatory

We confirm that the undersigned is duly authorized to submit this application and make commitments on behalf of the Bidder. The supporting documents for authorization are submitted in Form 1.1.

11) Rights of the Procuring Entity to Reject Applications

We further understand that:

- The Procuring Entity is not bound to accept all applications and reserves the right to reject any or all applications without assigning any reason.

- Empanelment does not constitute a contract but only pre-qualifies the bidder for future project-based selection.

12) Declaration & Signature

We confirm our understanding, compliance, and willingness to be empanelled as per the RFE.

Signature with date: _____

Name & Designation: _____

Duly authorized to sign for and on behalf of: [Name & Address of the Bidder]

(Official Seal of the Company)

Form 1.1: Bidder Information for RFE

*(To be submitted as part of the Technical Bid, on Bidder's Letterhead)
(Strike out alternative phrases not relevant to you)*

1. Bidder Details

Field	Details to be Provided
Legal Name of the Bidder	[Insert Legal Name]
Registered Business Address	[Insert Address]
Type of Entity	<input type="checkbox"/> Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Private Limited <input type="checkbox"/> Public Limited <input type="checkbox"/> LLP <input type="checkbox"/> Others (Specify)
Registration Number & Date of Incorporation	[Insert Registration No. & Date]
Place of Registration (Country/State)	[Insert Place]
Nature of Business	<input type="checkbox"/> Aerial Survey <input type="checkbox"/> GIS & Mapping <input type="checkbox"/> Data Processing <input type="checkbox"/> Remote Sensing <input type="checkbox"/> Others (Specify)
Year of Establishment	[Insert Year]
PAN Number	[Insert PAN]
GST Registration Number	[Insert GST No.]
ESI Registration Number	[Insert ESI No.]
EPF Registration Number	[Insert EPF No.]
ISO Certifications Held (if any)	<input type="checkbox"/> ISO 9001 <input type="checkbox"/> ISO 27001 <input type="checkbox"/> CMMI Level 3 <input type="checkbox"/> Others (Specify)
Registered Office Address	[Insert Address]
Branch Offices (if any)	[Insert Address(es)]
Contact Person (Authorized)	[Name, Designation]

Field	Details to be Provided
Representative)	
Email Address	[Insert Email]
Phone Number	[Insert Contact No.]
Website (if available)	[Insert Website]

2. Joint Venture/Consortium Information (If Applicable)

Field	Lead Partner Details	Partner 1 Details	Partner 2 Details
Legal Name	[Lead Partner Name]	[Partner 1 Name]	[Partner 2 Name]
Country of Registration	[Country]	[Country]	[Country]
Registration Number	[Reg. No.]	[Reg. No.]	[Reg. No.]
Role in the Consortium	[Specify]	[Specify]	[Specify]
% of Participation in JV	[%]	[%]	[%]

(Attach the Joint Venture/Consortium Agreement if applicable.)

3. Bank Details (For Reference Verification)

Field	Details to be Provided
Bank Name & Branch	[Insert Name & Branch]
Bank Account Number	[Insert Account No.]
IFSC Code	[Insert IFSC]
SWIFT Code (For Foreign Bidders)	[Insert SWIFT Code]
Bank Contact Person & Designation	[Insert Name & Designation]
Bank Contact Number	[Insert Contact No.]

(Attach a Bank Reference Letter issued within the last 3 months.)

4. List of Relevant Licenses and Registrations

License/Registration	Issuing Authority	Validity	Attached (Yes/No)
NSOP (For Manned Aircraft Operators)	DGCA	[Insert Validity]	<input type="checkbox"/> Yes <input type="checkbox"/> No
UAV Pilot License (For Drone Operators)	DGCA	[Insert Validity]	<input type="checkbox"/> Yes <input type="checkbox"/> No
GST Registration Certificate	Government of India	[Insert Validity]	<input type="checkbox"/> Yes <input type="checkbox"/> No
PAN Card	Income Department Tax	Permanent	<input type="checkbox"/> Yes <input type="checkbox"/> No
ISO 9001:2015 Certification	Certifying Agency	[Insert Validity]	<input type="checkbox"/> Yes <input type="checkbox"/> No
ISO 27001:2013 Certification	Certifying Agency	[Insert Validity]	<input type="checkbox"/> Yes <input type="checkbox"/> No

(Attach copies of all relevant certificates.)

5. Undertaking & Declaration

We, the undersigned, confirm that:

1. The information provided above is **true and accurate** to the best of our knowledge.
2. We comply with **all eligibility criteria** set forth in the RFE.
3. We have **not been blacklisted or debarred** by any government entity in India.
4. We agree to provide **original documents for verification** upon request.
5. We undertake to **adhere to all guidelines, rules, and regulations** of the RFE.

Authorized Signatory:

Signature: _____

Name: _____

Designation: _____

Company Name & Seal: _____

Date: _____

Form 1.2: Eligibility Declarations (For Empanelment under RFE)

(To be submitted as part of the Technical Bid)

Tender Document No.: S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Providing Geospatial Services

Bidder's Name: _____

Bidder's Reference No.: _____

Date: _____

Eligibility Declarations

(Please tick appropriate boxes or cross out any declaration not applicable to the bidder)

We hereby confirm that we comply with all the stipulations of ITB-clause 3.2 and declare the following. We shall provide evidence of our continued eligibility to the Procuring Entity as may be requested:

1) Legal Status of the Bidder

✓ The Bidder is a **legal entity registered in India** as:

- Sole Proprietorship
- Partnership Firm
- Private Limited Company
- Public Limited Company
- LLP / Any Other (Specify) _____

✓ **Registration Certificate enclosed:** Yes No

2) Bidder Status for Empanelment

✓ We are applying for **technical empanelment** under the RFE in the following service categories (tick as applicable):

We seek empanelment for providing the following category/categories of services:
(Tick the applicable service categories as per the RFE)

- Category 1 – Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)**
- Category 2 – Drone Services for 3D City Model**
- Category 3 – Drone Services for Ortho Rectified Imagery (ORI) and Terrain Survey using**

LiDAR

- Category 4 – Manned Aerial Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR**
- Category 5 – Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR**
- Category 6 – 2D Feature Extraction Services**
- Category 7 – 3D Feature Extraction and Vector Model Services**
- Category 8 – DSM to DTM Conversion Services**
- Category 9 – Geo-Positioning Services - Horizontal Control**
- Category 10 – Geo-Positioning Services - Vertical Control**
- Category 11 – Georeferencing Services**

✓ Supporting documents enclosed: Yes No

3) Compliance with Legal and Ethical Standards

✓ We solemnly declare that we (including our affiliates, subsidiaries, and consortium members, if any):

- (a) Are not insolvent, bankrupt, or in receivership.**
- (b) Are not debarred/ blacklisted/ banned by any Government entity or PSU.**
- (c) Have not been convicted for fraudulent or corrupt practices.**
- (d) Have no conflict of interest that affects fair competition.**

✓ Self-declaration enclosed: Yes No

4) Compliance with National Security and Procurement Guidelines

✓ We confirm compliance with Rule 144 (xi) of the General Financial Rules 2017:

- We do not belong to any country that shares a land border with India.**
- If from such a country, we have valid registration with the Competent Authority.**

✓ Certificate enclosed (if applicable): Yes No

✓ We shall not subcontract work to any entity from such restricted countries unless duly registered with the Competent Authority.

5) Compliance with Geospatial Guidelines 2021

✓ We declare compliance with the Guidelines for Acquiring & Producing Geospatial Data and Services, 2021, issued by the Government of India.

✓ Self-declaration enclosed: Yes No

6) Compliance with Employment and Labor Laws

✓ We confirm adherence to the following labor laws:

- Workmen Compensation Act, 1923
- Employees P.F. and Miscellaneous Provision Act, 1952
- Contract Labor (Regulation & Abolition) Act, 1970
- Minimum Wages Act, 1948
- Equal Remuneration Act, 1979
- Other relevant labor laws applicable to service providers in India

✓ **Self-certification enclosed:** Yes No

7) Status under Government Procurement Policies

✓ **MSME Status:**

- We are a **Micro/ Small/ Medium Enterprise (MSME)** registered under Udyam Registration.
- We have attached a **valid Udyam Registration Certificate**.
- Our MSME status does not apply.

✓ **Start-up Status:**

- We are / are not a DPIIT-recognized Start-up (Attach certificate if applicable).

✓ **Make in India (MII) Status:**

- Class-I Local Supplier (≥50% local content)**
- Class-II Local Supplier (20-50% local content)**
- Non-Local Supplier (<20% local content)**

✓ **Local Content Certificate (if applicable):** Yes No

8) Personnel and Equipment Declaration

✓ We confirm that we have access to:

- Key personnel as per **Section VIII-1: Key Personnel Schedule** (Form 3.3 enclosed)
- Critical equipment as per **Section VIII-2: Critical Equipment Schedule** (Form 3.4 enclosed)

✓ **Supporting documents enclosed:** Yes No

9) Past Performance and Litigation Record

✓ We confirm:

- No non-performance of contracts in the past 5 years.

No ongoing litigation exceeding 10% of our net worth.
 No contract termination for failure to execute obligations.

✓ Litigation statement enclosed (Form 4.2): Yes No

10) Penalties for False or Misleading Declarations

✓ We confirm that:

(a) The information provided is **true and correct** to the best of our knowledge.
(b) Any false declaration will be subject to disqualification.

We undertake to pay the prescribed Empanelment Registration Fee upon being declared technically qualified.

✓ Authorized Signatory:

Signature: _____

Name: _____

Designation: _____

Company Name & Seal: _____

Date: _____

✓ Note: If applying as a **Joint Venture/Consortium**, all members must jointly sign this form.

3 Form 1.3: Declaration by Agents/ Associates of Foreign Principals

Deleted

Form 2: Schedule of Requirements - Compliance

(For Empanelment under RFE - Technical Qualification Only)

Tender Document No.: S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

Bidder's Reference No.: _____

Date: _____

Contract Period:

- **Empanelment Period:** 3 years (extendable as per procurement entity's discretion).
- **Validity of Empanelment:** Only for technical qualification; financial proposals to be invited separately on a project basis.

Services and Activities Schedule

(To be submitted as part of Technical Bid, with supporting documents, if any)

Schedule No.	Category of Services	Activity Description & Scope	Outcomes, Deliverables, Reports	Frequency/Timelines/Milestones	Quantum	UNIEs	Local Content (%)	Service Site/State	Bidder's GSTIN
Schedule 1	Drone Services for Ortho Rectified Imagery (ORI) and	UAV-based high-resolution nadir imagery acquisition	Digital True Ortho-imagery (< 5cm GSD), DSM,	As per project requirements	Per sq. km	>50%	>50%	Urban & Rural Areas	

Schedule No.	Category of Services	Activity Description & Scope	Outcomes, Deliverables, Reports	Frequency/Timelines/Milestones	Quantum	UNIEs	Local Content (%)	Service Site/State	Bidder's GSTIN
	Digital Surface Model (DSM)		DTM						
Schedule 2	Drone Services for 3D City Model	UAV-based oblique angle imaging & mesh modeling	3D Photorealistic City Model, ORI, DSM	As per project requirements	Per sq. km	>50%	>50%	Urban Areas	
Schedule 3	Drone Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR	UAV-based imagery & LiDAR acquisition using for ORI & DSM generation	LiDAR Point Cloud, DSM, DTM	As per project requirements	Per sq. km	>50%	>50%	Special Terrain Areas	
Schedule 4	Manned Aerial Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR	Aerial imagery & LiDAR acquisition using Aircraft/Helicopter	Digital Ortho-imagery ($\leq 10\text{cm GSD}$), LiDAR-based DSM & DTM	As per project requirements	Per sq. km	>50%	>50%	All Areas	
Schedule 5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	Oblique aerial imaging & LiDAR-based 3D model creation	3D City Mesh Model, ORI, DSM, DTM	As per project requirements	Per sq. km	>50%	>50%	Urban Areas	
Schedule 6	2D Feature Extraction Services	Vector digitization of buildings, utilities, roads	2D GIS Layers: Parcels, Roads, Utilities	As per project requirements	Per sq. km	>50%	>50%	Urban & Rural Areas	
Schedule 7	3D Feature Extraction and Vector Model Services	3D Feature Extraction from LiDAR & Stereo Photogrammetry	3D GIS Layers: Buildings, Structures, Public Utilities	As per project requirements	Per sq. km	>50%	>50%	Urban Areas	
Schedule 8	DSM to DTM DSM to DTM Conversion Services	Terrain Classification from LiDAR/Stereo Imagery	Classified Digital Terrain Model (DTM)	As per project requirements	Per sq. km	>50%	>50%	All Areas	

Schedule No.	Category of Services	Activity Description & Scope	Outcomes, Deliverables, Reports	Frequency/Timelines/Milestones	Quantum	UNIEs	Local Content (%)	Service Site/State	Bidder's GSTIN
Schedule 9	Geo-Positioning Services (Horizontal Control)	GNSS-Based Ground Control Point Establishment	Control Points with ≤ 2cm RMSE	As per project requirements	Per point	>50%	>50%	All Areas	
Schedule 10	Geo-Positioning Services (Vertical Control)	High-Precision Leveling & Vertical Control	Vertical Benchmarks with ≤ 2cm RMSE	As per project requirements	Per point	>50%	>50%	All Areas	
Schedule 11	Georeferencing Services	Transformation of old maps & legacy records to WGS-84	Georeferenced Maps & GIS Layers	As per project requirements	Per sq. km	>50%	>50%	All Areas	

Instructions for Bidders:

1. Ensure consistency with **Section VI: Schedule of Requirements** in the RFE document.
2. Clearly define deliverables, indicating what is included/excluded from the scope of services.
3. Specify quantum of work, aligning with the technical qualification requirements.
4. Empanelment does not guarantee financial allocation—financial bids will be invited separately for specific projects.
5. No financial details should be provided in this form; it is only for technical compliance and capability demonstration.
6. Supporting documents required:
 - o Organizational experience in similar projects.
 - o Compliance with technical and quality specifications.
 - o Proof of equipment availability and key personnel as per **Section VIII-1 & VIII-2**.

✓Authorized Signatory:

Signature: _____

Name: _____

Designation: _____

Company Name & Seal: _____

Date: _____

Deviations from Schedule of Requirements

(Ref ITB-clause 9.2, Schedule VI: Schedule of Requirements)
(To be submitted as part of the Technical bid)
(On Bidder's Letterhead)

Tender Document Details

Tender Document No.: S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name:

[Address and Contact Details]

Bidder's Reference No.:

Date:

Instructions to Bidders

1. Only deviations that are material and have a justifiable reason should be listed.
2. If there are no deviations, bidders must write "No Deviations" and sign the form.
3. The Procuring Entity reserves the right to accept or reject deviations at its discretion.

Deviations from Schedule of Requirements

Bidder's Declaration

We confirm that we shall **comply with, abide by, and accept** without variation, deviation, or reservation all requirements detailed in **Section VI: Schedule of Requirements**, except for those specifically mentioned in the table above.

If any conflicting terms and conditions are mentioned elsewhere in our bid, such terms shall **not be recognized and shall be deemed null and void.**

Authorized Signatory

.....
(Signature with date)

.....
(Name and designation)

Duly authorized to sign the bid for and on behalf of:

.....
(Name & address of Bidder and Seal of Company)

Note:

1. This form should be jointly signed by the Bidder and each member of a joint venture/consortium, if applicable.
2. Supporting documents for deviations, if any, should be attached to this form.
3. Deviations that contradict the mandatory eligibility criteria or technical qualification criteria of the RFE will lead to disqualification.

Form 3: Performance Standards and Quality Assurance - Compliance

(Ref ITB-clause 9.2, Schedule VII: Performance Standards and Quality Assurance)
(To be submitted as part of the Technical bid)
(On Bidder's Letterhead)

Tender Document Details

Tender Document No.: S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date:

Instructions to Bidders

1. This form must be filled in compliance with Section VII: Performance Standards and Quality Assurance.
2. Any deviations must be clearly stated in the table below along with justification.
3. If there are no deviations, bidders must write "No Deviations" and sign the form.
4. The Procuring Entity reserves the right to accept or reject deviations at its discretion.

Performance Standards and Quality Assurance - Compliance

Bidder's Declaration

We confirm that we shall **comply with, abide by, and accept** without variation, deviation, or reservation all **Performance Standards and Quality Assurance** requirements in the **Request for Empanelment (RFE) document**, except for those specifically mentioned in the table above.

If any conflicting terms and conditions are mentioned elsewhere in our bid, such terms shall **not be recognized and shall be deemed null and void**.

Authorized Signatory

.....
(Signature with date)

.....
(Name and designation)

Duly authorized to sign the bid for and on behalf of:

.....
(Name & address of Bidder and Seal of Company)

Attachments (if applicable)

Relevant documents like technical data, literature, drawings, and other supporting documents must be attached where necessary.

Note:

1. **This form should be jointly signed by the Bidder and each member of a joint venture/consortium, if applicable.**
2. **Supporting documents for deviations, if any, should be attached to this form.**
3. **Deviations that contradict the mandatory quality and performance criteria will lead to disqualification**

Method Statement (Form 3.1)

(Ref ITB-clause 9.2, Schedule VII-1: Method Statement)

(To be submitted as part of the Technical bid)

(On Bidder's Letterhead)

Tender Document Details

Tender Document No.: S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date: _____

Instructions to Bidders

1. **Bidders must provide a detailed methodology outlining their approach to executing the services under the RFE.**
2. **The method statement must clearly describe personnel deployment, equipment, materials, and execution methodology.**
3. **Key performance parameters, reporting structure, and quality control measures must be explicitly stated.**
4. **In case of Joint Ventures (JV/C) or Subcontracting, the respective roles and responsibilities of each party must be highlighted.**
5. **Bidders must demonstrate a complete understanding of the scope, nature, and resources needed to deliver the services.**
6. **The responsibilities of each consortium member (if applicable) must be clearly defined.**
7. **The Method Statement must be supplemented by information in the Work Plan, Personnel Deployment Plan, Equipment Deployment Plan, and Materials Deployment Plan.**

Method Statement Components

1. Introduction

- **Project Overview:**
 - Brief description of the scope of services, objectives, and key deliverables.
- **Purpose of the Method Statement:**
 - Explanation of how the method statement demonstrates the bidder's understanding and approach to the project.
- **Company Background:**

- Overview of the bidder's company, including relevant experience, expertise, and organizational structure.

2. Work Methodology

- **Detailed Work Plan:**
 - Step-by-step explanation of execution methodology and sequence of operations.
 - Integration of multiple service categories and how project sizing impacts resource deployment.
- **Data Acquisition:**
 - Description of platforms used (manned/unmanned aerial vehicles, LiDAR, GNSS stations, ground surveys).
 - Details on flight planning, area coverage, sensor calibration, and data capture.
 - Safety protocols and regulatory compliance for aerial data acquisition.
- **Data Processing & Analysis:**
 - Processing methods for different deliverables (2D/3D feature extraction, digital elevation models, orthoimagery).
 - GIS integration approach and software utilized.
 - Quality control measures at each processing stage.
- **Quality Control & Performance Standards:**
 - Methods to ensure compliance with required accuracy levels.
 - Automated and manual quality assurance (QA) and quality control (QC) workflows.
- **Data Delivery & Documentation:**
 - Formats of final deliverables and metadata compliance.
 - Secure transfer of data and compliance with geospatial guidelines.
- **Ground Validation & Stakeholder Coordination:**
 - Coordination with State Authorities/Urban Local Bodies for validation and data accuracy verification.
 - Ground truthing methodologies and in-situ validation strategies.

3. Resource Allocation & Deployment Plan

- **Personnel Deployment:**
 - Description of human resource deployment with skill requirements for key roles.
 - Supervisory roles and coordination between teams.
- **Equipment & Materials Deployment:**
 - List of critical and auxiliary equipment for execution.
 - Justification of equipment sufficiency for project scale (e.g., 1000 sqkm in 2 months).
- **Operational Workflow & Timeline:**
 - Milestone-based execution schedule.
 - Contingency planning for operational disruptions.

4. Quality Assurance and Quality Control (QA/QC)

- **QA/QC Plan:**
 - Adherence to performance standards as per Schedule VII.
 - Compliance tracking and issue resolution workflows.
- **Reporting & Documentation:**
 - Format and frequency of QA/QC reports.
 - Incident reporting and response mechanisms.

▪ 5. Health, Safety, and Environmental (HSE) Considerations

- **Safety Protocols:**
 - Risk assessment and mitigation strategies.
 - Compliance with aviation and workplace safety guidelines.
- **Environmental Impact:**
 - Measures for minimizing ecological disturbances.
 - Regulatory adherence and sustainability considerations.

6. Risk Management Strategy

- **Risk Identification & Mitigation:**
 - Analysis of potential technical, operational, and regulatory risks.
 - Contingency plans for unforeseen project delays.
- **Risk Monitoring & Reporting:**
 - Continuous monitoring and mitigation tracking mechanisms.

7. Communication & Stakeholder Engagement

- **Internal Communication Plan:**
 - Team coordination strategy and periodic review mechanisms.
- **Client & External Communication:**
 - Client interaction protocols, progress reporting, and addressing feedback.
- **Stakeholder Engagement:**
 - Involvement of state agencies and Urban Local Bodies in project execution.

8. Compliance with Legal & Regulatory Requirements

- **Regulatory Adherence:**
 - DGCA compliance for aerial data acquisition.
 - Adherence to Survey of India and DST Geospatial Guidelines, 2021.
- **Data Security & Privacy Measures:**
 - Ensuring confidentiality and secure handling of geospatial datasets.

9. Conclusion & Value Proposition

- **Summary of the Approach:**
 - How the proposed methodology ensures efficiency and high-quality outputs.
- **Bidder's Competitive Advantage:**
 - Key strengths that differentiate the bidder in delivering the required services.

Authorized Signatory

.....
(Signature with date)

.....
(Name and designation)

Duly authorized to sign the bid for and on behalf of:

.....
(Name & address of Bidder and Seal of Company)

Attachments (if applicable)

- Work Plan
- Personnel Deployment Plan
- Equipment Deployment Plan
- Materials Deployment Plan
- QA/QC Compliance Documents

Note:

1. **This form must be jointly signed by the Bidder and each member of a Joint Venture/Consortium, if applicable.**
2. **Supporting documents demonstrating the methodology should be attached.**
3. **The method statement should align with the performance monitoring requirements specified in Section VII of the RFE**

Form 3.2: Work-Plan

(Ref ITB-clause 9.2, Schedule VII-2: Work Plan)
(To be submitted as part of Technical bid)
(On Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____
[Address and Contact Details]

Bidder's Reference No.: _____ **Date:** _____

1. Objective of Work Plan

This work plan outlines the approach, timeline, and sequencing of activities required for successful empanelment under the proposed Request for Empanelment (RFE). The plan ensures the firm's readiness to undertake project-specific assignments post-empanelment based on class-wise eligibility (Class C, B, A, A+).

2. Overall Work Plan Structure

The work plan shall provide details for:

- Readiness for Empanelment: Resource and infrastructure availability as per the class-based eligibility.
- Technical Capability: Demonstrated through credentials, past performance, and submitted documents.
- Quality Assurance: Compliance with defined QA/QC parameters as per Schedule VII.
- Scalability of Resources: Capability to scale up for project-based assignments.

3. Work Plan – Timeline and Milestones

(To be represented as a Gantt Chart or detailed tabular timeline covering the activities and dependencies)

Activity No.	Task Description	Start Date	End Date	Milestone Achieved
1	Submission of Empanelment Documents	T0	T0+15 Days	Eligibility Review Completed
2	Credential-Based Technical Evaluation	T0+15 Days	T0+30 Days	Technical Qualification Assessed

3	Resource Readiness Confirmation (Key Personnel, Equipment)	T0+30 Days	T0+45 Days	Verification Completed
4	QA/QC Compliance Documentation	T0+45 Days	T0+60 Days	QA/QC Process Compliance Verified
5	Final Empanelment Approval and Notification	T0+60 Days	T0+75 Days	Firm Successfully Empanelled

4. Key Components of Work Plan

4.1 Resource Deployment Plan

- Identification and deployment of key personnel as per Section VIII-1.
- Equipment availability and readiness as per Section VIII-2.
- Access to software and infrastructure for data handling and GIS analysis.

4.2 Technical Readiness (Demonstration Not Required)

- Demonstration not required. Capability substantiated through past experience, contracts, and certifications.
- Compliance with technical specifications and national standards.

4.3 Quality Assurance and Compliance

- Internal QA checkpoints.
- Compliance with RFE-defined technical benchmarks and GoI standards.

4.4 Scalability and Execution Readiness

- Resource scalability aligned with class (C, B, A, A+).
- Operational adaptability across project sizes and locations.

5. Monitoring and Reporting Mechanism

- Periodic internal review and milestone validation.
- Progress reporting aligned with performance monitoring under the empanelment framework.

Declaration

We confirm that the above work plan aligns with the proposed Request for Empanelment (RFE) and ensures technical compliance, quality assurance, and scalability for project-based assignments. We understand that any deviation from this plan post-empanelment may lead to re-evaluation of our eligibility and technical capability by the Procuring Entity.

Authorized Signatory:

..... (Signature with date)
..... (Name and designation)
Duly authorized to sign bid for and on behalf of
[name & address of Bidder and seal of company]

Note:

- This Work Plan should be **jointly signed by the Bidder and each member of a joint venture/ Consortium** (if applicable).
- The bidder is advised to **attach detailed Gantt Charts, process flow diagrams, and resource availability statements** to supplement this Work Plan.

Form 3.3: Personnel Deployment Plan

(Ref ITB-clause 9.2, Schedule VIII-1: Key Personnel Schedule)

(To be submitted as part of Technical bid)

(On Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date: _____

Personnel Deployment Plan

Note to Bidders:

1. Key personnel and non-key staff required for empanelment shall be indicated in this form.
2. The bidder must demonstrate the availability of experienced personnel in line with Section VIII-1: Key Personnel Schedule to ensure compliance with class-based technical qualification.

For all categories of key personnel (Project Manager, LiDAR Specialist, Photogrammetry Specialist, GIS Analyst, UAV Drone Pilot, Survey Engineer):

- Minimum qualification: Bachelor's degree in GIS, Geography, Geology, Earth Sciences, Engineering, Remote Sensing, BCA, MCA, or equivalent disciplines with relevant domain experience.
- Diploma holders with 5 years of relevant experience are also eligible.
- UAV Drone Pilots: Minimum 10th standard pass with valid DGCA RPTO certificate and at least 1 year of drone flying experience.

3. Firms must confirm readiness to deploy personnel as per class-based eligibility and project requirements.
4. If applying as a Joint Venture (JV) or involving subcontracting, include all key personnel from the bidder, JV partners, and subcontractors, clearly defining roles and responsibilities.
5. All key personnel should submit their CVs in the prescribed format below.

Key Personnel Deployment Plan – Qualification and Experience Matrix

Sr. No.	Position & Responsibility	Qualification / Certification / License / Training	Experience in Similar Projects (Years)	Class-Wise Minimum Number Required (C /	Additional Notes

				B / A / A+)	
1	Project Manager	Bachelor's in Engineering /Geospatial/Remote Sensing or MBA (Project Management)	Min 5 years (2 projects in LiDAR/Aerial imagery)	1 / 1 / 2 / 3	Overall project management &compliance
2	LiDAR Specialist	Bachelor's in Remote Sensing/Engineering; Training in Terrasolid/Leica Cyclone preferred	Min 3 years in LiDAR processing	1 / 2 / 3 / 4	Point cloud acquisition & terrain modeling
3	Photogrammetry Specialist/ Data Processing Technician	Bachelor's in Geospatial/Engineering; Software skills in Pix4D/Metashape or equivalent software with similar capabilities)	Min 3 years in aerial imagery processing	1 / 2 / 3 / 4	3D mesh, orthophoto, stereoscopic compilation
4	UAV/Aircraft Pilot	Certified DGCA UAV/Fixed-Wing Pilot License	Min 1 years in geospatial data collection	2 / 5 / 12 / 20 or 1 Aircraft Pilot	Flight operations & DGCA compliance
5	GIS Operators	Diploma/Bachelor's in GIS/Remote Sensing/Engineering	Min 3 years in processing geospatial datasets	20 for all classes	2D/3D feature extraction & GIS integration
6	QA/QC Specialist	Bachelor's in Engineering/GIS + ISO 9001 (QMS) Certification	Min 3 years in QA/QC for geospatial projects	1 / 2 / 4 / 5	Deliverable validation and compliance assurance
7	Surveyor (Ground Control)	Diploma/Bachelor's in Engineering /Geospatial Engineering	Min 3 years in GNSS-based GCP/benchmark setup	2 / 5 / 8 / 10	Control points & vertical benchmarks

Declaration:

We confirm that the above Key Personnel Deployment Plan complies with the requirements laid out in Section VIII-1 of the RFE, including the class-specific staffing thresholds. Personnel are qualified, experienced, and available for project mobilization upon empanelment.

CV Format for Key Personnel (To be attached for each key personnel)

Position Applied For: _____

Name: _____

Date of Birth: _____

Educational Qualifications:

- Degree/Diploma: _____
- Institution/University: _____
- Year of Passing: _____

Professional Certifications & Licenses:

- Certification Name: _____
- Issuing Authority: _____
- Year of Issue: _____

Employment History:

From	To	Company / Project	Position Held	Relevant Technical & Management Experience
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Key Projects Executed (Relevant to Empanelment):

- Project 1: _____
- Project 2: _____
- Project 3: _____

B. Non-Key Personnel Deployment Plan

No.	Staff Category	Skill/ Experience/ Qualification	Nos to be Deployed / Man-Months Required
1	GIS/ CAD Operator	Diploma in GIS, Engineering, or Remote Sensing	As Required
2	Data Entry Operator	Skilled in Geospatial Data Entry and Management	As Required
3	UAV Field Assistant	Experience in UAV Operations, GNSS Surveying	As Required
4	Logistics & Support Staff	Experience in Field Survey Operations	As Required
5	Safety & Compliance Officer	Certified in Aviation Safety Regulations	As Required

Declaration

We confirm that the above Personnel Deployment Plan aligns with the requirements of the Request for Empanelment (RFE) and ensures compliance with all technical and performance standards, including class-specific staffing norms.

We understand that failure to deploy adequate personnel as per this plan may lead to disqualification from empanelment or re-evaluation of eligibility.

Authorized Signatory:

..... (Signature with date)

..... (Name and designation)

Duly authorized to sign bid for and on behalf of

[name & address of Bidder and seal of company]

Form 3.4: Critical Equipment Deployment Plan

(Ref ITB-clause 9.2, Schedule VIII-2: Critical Equipment Schedule)
(To be submitted as part of the Technical Bid)
(On Company Letterhead)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Details

Bidder's Name: _____

Address and Contact Details: _____

Bidder's Reference No.: _____

Date: _____

Note to Bidders:

1. Indicate the class-based minimum number of critical equipment necessary to perform services aligned with the technical qualification requirements for empanelment.
2. Class-specific equipment thresholds are outlined below. Additional equipment may be proposed to enhance performance.
3. This form supports verification of equipment ownership or lease (minimum 12 months). Equipment ownership may be proven via:
 - Proof of purchase,
 - Valid lease agreement (minimum 12 months),
 - MoU with legal equipment owners (OEM/Authorised Dealer/Service Provider).A standard lease agreement format is appended in the annexure.

Class-Wise Equipment Deployment Matrix

Sr. No.	Equipment Type	Specification	Class C	Class B	Class A / A+
1	UAV (with Nadir Camera)	RTK/PPK enabled, $\leq 5\text{cm GSD}$	3	5	12 / 20
2	UAV with Oblique Camera	1 Nadir + 4 Oblique	1	1	2 / 3

3	UAV with LiDAR Sensor	≥ 10 pts/m ²	1	1	2 / 2
4	Manned Aircraft/Helicopter	DGCA-certified for imaging/LiDAR	1	1	1 / 1
5	GNSS Base Stations	Dual-frequency RTK	3	5	10 / 15
6	Digital Level	With Invar staff	1	2	3 / 4
7	Photogrammetry Software	Pix4D / Metashape	1	2	3 / 5
8	LiDAR Processing Software	Terrasolid, Leica	1	2	3 / 5
9	GIS Feature Extraction Tools	ArcGIS / Bentley / QGIS	10	20	25 / 40
10	Workstations for Processing	High-performance GPU	2	5	10 / 15
11	NAS / Cloud Storage	≥ 100 TB (scalable)	20TB	50TB	80TB / 150TB+

Note: The above table outlines minimum thresholds for empanelment under each class. Project-specific quantities may vary depending on area, scope, and duration.

Declaration of Compliance

I/We confirm that the equipment listed will be made available in accordance with the minimum class-specific requirements. Any deviation shall be communicated for approval prior to project execution.

Signatures

Authorized Representative of Bidder

(Signature with Date)

(Name & Designation)

(Seal of Company)

Authorized Representatives of JV Partners (if applicable)

(Signature with Date)

(Name & Designation)

(Seal of Company)

Ownership Details Declaration

Bidders must indicate the ownership status of all critical equipment. Acceptable ownership structures include:

- Fully owned by the bidder
- Leased through a valid lease agreement (minimum 12 months duration)
- Access through JV/subcontractor agreement with supporting documentation

The table below must be filled and submitted with relevant supporting documents:

Equipment Description	Quantity Available	Ownership Status (Owned/Leased/JV)	Remarks

Form 3.5: Critical Materials Deployment Plan

(Ref ITB-clause 9.2, Schedule VII-3: Critical Material Schedule)
(To be submitted as part of the Technical Bid)
(Along with supporting documents, if any)
(On Company Letterhead)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

▪ Bidder's Details

Bidder's Name: _____

Address and Contact Details: _____

Bidder's Reference No.: _____

Date: _____

Note to Bidders:

1. List the class-wise critical materials essential for delivering services in compliance with technical qualification requirements.
2. Only essential materials required for performing the service should be included. Non-critical miscellaneous materials (e.g., safety gear, hygiene kits) are not to be included here.
3. Material costs shall not be quoted at this stage. Costs will be submitted only at the project-based bidding stage.
4. Bidders must confirm their access to and availability of these materials to ensure technical qualification.
5. In case of Joint Ventures (JV) or Sub-Contracting, all materials to be provided by the bidder/JV partners/subcontractors must be listed, including ownership structure.

Critical Material Deployment Schedule

Item Sr.	Description/Category	Specifications/Capacity/Condition and Age	Location (if applicable)	Minimum Quantity (Class C/B/A/A)	Ownership/Access Status

				+)	
1	Ground Control Targets & Markers	High-reflectance, survey-grade material	As per project site	10 / 10 / 12 / 15 per sq. km	[Specify]
2	GNSS Base Stations	Dual-frequency GNSS with RTK/PPK	Field deployment	3 / 5 / 10 / 15	[Specify]
3	Survey-Grade LiDAR Reflectors	Calibrated targets for LiDAR accuracy control	Survey Area	3 / 5 / 8 / 10 per sq. km	[Specify]
4	Cloud Storage & Backup Devices	≥100TB secure storage	Processing Center	20TB / 50TB / 80TB / 150TB+	[Specify]
5	Secure Data Transmission Devices	Encrypted file transfer system	Processing Facility	1 / 1 / 2 / 2 per project	[Specify]
6	High-Speed Workstations	GPU-enabled, multi-core systems	Processing Center	2 / 5 / 10 / 15	[Specify]
7	GIS Software Licenses	ArcGIS / QGIS or equivalent software with similar capabilities)	Processing Center	5 / 10 / 20 / 40	[Specify]
8	Image/LiDAR Processing Software	Pix4D, Metashape, Terrasolid or equivalent software with similar capabilities)	Processing Center	1 / 2 / 3 / 5	[Specify]

Declaration of Compliance

I/We hereby declare that the above-listed critical materials shall be made available as required for services under the empanelment. Any deviation from these commitments shall be duly informed and approved by the State Geospatial Directorate before project execution.

We understand that:

- The empanelment process does not require financial bidding at this stage.
- Project-specific financial proposals shall include material costs.
- Availability of critical materials shall be verified as part of the empanelment evaluation.
- Failure to meet the critical material requirements shall result in disqualification from empanelment.

Signatures

Authorized Representative of Bidder

(Signature with Date)

(Name & Designation)

(Seal of Company)

Authorized Representatives of JV Partners (if applicable)

(Signature with Date)

(Name & Designation)

(Seal of Company)

Form 4: Qualification Criteria - Compliance

(Ref *ITB-clause 9.2, Schedule VIII: Qualification Criteria*)

(To be submitted as part of Technical Bid)

(Along with supporting documents, if any)

(On Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date: _____

Note to Bidders:

This form captures all class-based qualification parameters required for technical empanelment under the RFE. Bidders must tick applicable service categories and indicate class-wise qualification compliance. Attach supporting documents where required. Bidders must furnish all stipulated documents in support of the fulfillment of qualification criteria as specified in the RFE. The list below is indicative only. Additional documents may be submitted as required. Failure to submit complete supporting documents may lead to rejection of the bid as non-responsive. Any deviations from **Section VIII: Qualification Criteria** must be highlighted in this form.

Summary of Response to Qualification Criteria

Criteria 1 - Experience and Past Performance

- Submit project completion certificates as per class-specific experience requirements in Form 4.1.

#	Requirement	Bidder's Response	Supporting Document Reference
1	Category & Class-Specific Experience: Number of successfully completed or substantially completed ($\geq 80\%$ payment received) contracts in the last 3 years, in each category of service being applied for. Minimum project value and size must be as per applicable class norms (Section VIII-1). Use Form 4.1: <i>Performance Statement</i> .	[Yes/No]	[Attach category-wise completion certificates (Form 4.1)]

#	Requirement	Bidder's Response	Supporting Document Reference
2	Non-Performance and Litigation Disclosure (as per Form 4.2):		
2(a)	Contracts terminated or declared non-performing in the last 5 years. Declare class-wise, if any.	[Yes/No]	[Attach Form 4.2]
2(b)	Total value of pending litigation as a percentage of the bidder's latest net worth. Must not exceed 10% of net worth.	[%]	[Attach CA-certified statement with Form 4.2]
2(c)	Incidents of failure to sign contract after receiving Letter of Award in the past 5 years.	[Yes/No]	[Attach explanatory note in Form 4.2]

Criteria 2 – Technical Qualification and Capability

Refer to class-based requirements for critical equipment (Form 3.4), key personnel (Form 3.3), and software tools.

#	Requirement	Bidder's Response	Supporting Document Reference
3	Key Personnel: Compliance with class- and service-category-wise minimum personnel requirements as specified in the Key Personnel Schedule (Section VIII-1) and detailed in Form 3.3: <i>Personnel Deployment Plan</i> .	[Yes/No]	[Attach filled and signed Form 3.3 with CVs]
4	Critical Equipment: Compliance with class- and service-category-wise critical equipment thresholds as per Section VIII-2 and listed in Form 3.4: <i>Critical Equipment Deployment Plan</i> .	[Yes/No]	[Attach filled and signed Form 3.4 with ownership/lease documents]
5	Technical Capability Assessment: Evaluation will be based on documentary proof of past performance in similar geospatial services (Section VIII-1), in lieu of any field demonstration.	[Yes/No]	[Attach project experience certificates as per Form 4.1]

Criteria 3 - Financial Capability(as per Form 4.3)

Attach Form 4.3 with audited financials, banker references, and class-based financial qualification.

#	Requirement	Bidder's Response	Supporting Document Reference
6	Financial Ratios (Minimum Thresholds)		
6(a)	<i>Current Ratio:</i> Average over the last 3 years must be ≥ 1.0 .	[Yes/No]	[Attach audited financials / CA Certificate]
6(b)	<i>Debt Ratio:</i> Average over the last 3 years must be $\leq 50\%$.	[Yes/No]	[Attach audited financials / CA Certificate]
7	Minimum Average Annual Turnover (Past 3 Years) – Geospatial Services Only: <ul style="list-style-type: none"> Class C: ₹2.5 – 5 Cr Class B: ₹5 – 10 Cr Class A: ₹10 – 50 Cr Class A+: Above ₹50 Cr 	₹ _____ (Specify)	[Attach audited financials + Form 4.3]
8	Estimated Project Capacity & Financial Liquidity (Cash Flow Availability):		
8(a)	<i>Estimated Project Capacity (Per Annum):</i> <ul style="list-style-type: none"> Class C: ₹2.5 Cr Class B: ₹5.0 Cr Class A: ₹10.0 Cr Class A+: ₹20.0 Cr or above <i>Standard Minimum Liquidity Required (15% of above):</i> <ul style="list-style-type: none"> Class C: ₹0.38 Cr Class B: ₹0.75 Cr Class A: ₹1.50 Cr Class A+: ₹3.00 Cr or more 	₹ _____ (Specify) [Tick Class: <input type="checkbox"/> C <input type="checkbox"/> B <input type="checkbox"/> A <input type="checkbox"/> A+]	[Attach CA certificate, latest bank statement, or credit line proof with UDIN]
8(b)	<i>Access to Liquid Resources:</i> Availability of working capital / liquid assets / overdraft limit to meet the above cash flow requirement.	[Yes/No]	[Attach banker's certificate or liquidity statement]

Criteria 4 – Regulatory and Statutory Compliance

Attach statutory registration, ISO certifications, and declarations of non-blacklisting.

#	Requirement	Bidder's Response Supporting Document Reference
9	Legal Entity Registration: The bidder must be a registered legal entity in India (Private Limited, LLP, Partnership, Proprietorship, or PSU). In case of JV/Consortium, each partner must be registered.	[Yes/No] [Attach Certificate of Incorporation / Partnership Deed / Registration Certificate]
10	Statutory Tax Registrations: Bidder must possess valid PAN and GST registration.	[Yes/No] [Attach PAN and GST Certificates]
11	Mandatory Certifications: Bidder must possess valid ISO certifications: • ISO 9001:2015 (Quality Management) • ISO 27001:2013 (Information Security Management) *Note: CMMI Level 3 or above is preferred for Class A & A+.*	[Yes/No] [Attach Certificates]
12	Blacklist Declaration: Bidder must not have been blacklisted, debarred, or suspended by any Central/State Government, PSU, or Autonomous Body in India.	[Yes/No] [Attach Self-Declaration on Letterhead]
13	Geospatial Compliance Declaration: Bidder must comply with all applicable geospatial regulations, including: • National Geospatial Policy 2022 • Guidelines for Acquisition & Use of Geospatial Data, 2021 • Drone Rules, 2021 (for aerial services)	[Yes/No] [Attach Self-Certified Declaration]
14	Labour and Employee Benefits Compliance: Bidder must have valid registration under ESI Act or provide proof of equivalent group	[Yes/No] [Attach ESI Registration Certificate / Employee Group Insurance Proof]

	insurance for employees.	
15	<p>Additional Class-Specific Certifications:</p> <ul style="list-style-type: none"> • NSOP (for manned aircraft operators) • UAV Pilot Licenses (DGCA Certified) • BIS Certification (for survey-grade sensors, where applicable) 	<p>[Yes/No] [Attach Valid Certificates or Regulatory Approvals]</p>

Declaration & Submission of Supporting Documents

Note to Bidders:

1. Bidders must provide comprehensive evidence demonstrating continued eligibility and qualification specific to the Class (C, B, A, or A+) for which empanelment is sought, as defined in the RFE.
2. Supporting documents must substantiate compliance with all relevant qualification criteria.
3. The Procuring Entity reserves the right to request additional or updated documentation at any stage before the award of any project-specific contract.
4. Misrepresentation or failure to provide valid documentation shall result in disqualification or legal action.

Documents Attached Supporting Compliance to Qualification Criteria

Sr. No.	Document Description Attached (Yes/No)
1	Certificate of Incorporation / Registration (Company / Firm / Proprietorship / JV Agreement if applicable) [Yes/No]
2	PAN & GST Registration Certificates [Yes/No]
3	Work Completion Certificates (as per Class and Category-specific Experience Requirements in Form 4.1) [Yes/No]
4	Litigation History & Non-Performance Declaration (Form 4.2, along with supporting court orders if applicable) [Yes/No]
5	Audited Financial Statements for the Last 3 Years (Balance Sheets & P&L) [Yes/No]
6	Auditor's Certificate for Class-specific Turnover, Net Worth, and Current Ratio

	[Yes/No]
7	CVs of Key Personnel as per Class-based Deployment Plan (Form 3.3) [Yes/No]
8	Equipment Ownership or Access Proofs as per Form 3.4 (including live lease agreements if applicable) [Yes/No]
9	Proof of Access to Credit Facilities / Bank Sanctioned Credit Lines [Yes/No]
10	Self-declaration for Compliance with National Geospatial Guidelines 2021, Drone Rules 2021, and relevant MoSPI directives [Yes/No]
11	Class-Specific Technical Certifications (NSOP License / UAV Pilot License / BIS Certificates) [Yes/No]

Declaration by Authorized Signatory

We hereby declare that the particulars given above are factually correct, and nothing has been concealed. We undertake to provide any additional information/documentation required by the Procuring Entity to verify our compliance.

We understand that any false or misleading declaration would result in immediate disqualification and potential legal actions as per the tender conditions.

Signature: _____

Name: _____

Designation: _____

Company Name & Address: _____

Seal of the Company: _____

Date: _____

Note:

1. This form should be signed by the bidder and each member of a joint venture/consortium.
2. All supporting documents must be self-attested.
3. Non-submission of any mandatory document may result in disqualification.

Form 4.1: Performance Statement

Statement of Performance of Services During the Last Five Years and Outstanding Current Orders

(Ref ITB-clause 9.2, Schedule VIII: Qualification Criteria)

(To be submitted as part of the Technical Bid)

(On Company Letterhead)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date: _____

Note to Bidders:

- Bidders must complete this form to demonstrate compliance with Criteria 1 – Experience and Past Performance as outlined in Section VIII – Qualification Criteria of the RFE. The Bidder must list contracts for similar services undertaken in the past Three (3) years, including ongoing projects. This includes contracts executed as a Service Provider, affiliate, associate, subsidiary, subcontractor, or any other relevant role. Supporting documents (e.g., Work Completion Certificates, Client Testimonials, Contract Agreements) should be attached. Each member of a Joint Venture/Consortium forming part of the Bidder must separately submit this form.
- Firms applying under the performance-based relaxation clause must indicate ongoing Sol projects and attach supporting documents (work orders and performance certification)

Performance Statement – Completed and Ongoing Contracts

Sr. No.	Contracting Entity – Name and Address	Contract Title, Number, and Date	Role in Contract (Prime Contractor/ Subcontractor/ JV Partner/ Other)	Total Value of the Order (INR Crores)	Project Scope (Services Provided)	Contract Period (Start & Completion Date) Status (Completed/Ongoing)
1	[Insert Details]	[Insert Details]	[Insert Details]	[Insert Details]	[Insert Details]	[Insert Details]

2	[Insert Details]					
3	[Insert Details]					
4	[Insert Details]					
5	[Insert Details]					

Supporting Documents to be Attached:

- ✓ Work Completion Certificates / Final Acceptance Certificates (FAC) from Clients
- ✓ Contract Agreements for Ongoing Projects
- ✓ Client Testimonials / Letters of Appreciation (if available)
- ✓ Project Reports (if required by Procuring Entity)
-

Declaration by Authorized Signatory

We, the undersigned, declare that:

1. The above statements are true and correct, and all necessary supporting documents have been provided.
2. The contracts listed above represent our firm's relevant experience in line with the eligibility and qualification criteria of the RFE.
3. We authorize the Procuring Entity to contact the listed clients for verification, if required.
4. We understand that misrepresentation or false information may lead to disqualification and legal actions as per the tender conditions.

Signature: _____

Name: _____

Designation: _____

Company Name & Address: _____

Seal of the Company: _____

Date: _____

Notes:

1. **Each member of a Joint Venture/Consortium** must submit this form separately, listing their individual experience.
2. **Non-submission of required supporting documents** may result in disqualification.
3. **Projects listed must be relevant to the categories of services under the RFE**, such as High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction.

Form 4.2 Non-performance, Litigation Statement

(Ref ITB-clause 9.2, Schedule VIII: Qualification Criteria)

(To be submitted as part of Technical bid)

(On Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Note to Bidders: Fill this Form for the Bidder and each member of a Joint Venture/Consortium or association that is a party to the Bidder, to demonstrate compliance with Criteria 1(b): Non-performing Contracts and Litigation. Additional documents may be attached if required.

Non-Performing Contracts as per Criteria 1(b) Section VIII – Qualification Criteria

Contract non-performance did not occur during the five years prior to the deadline for bid submission.

OR

Contract(s) not performed during the five years prior to the deadline for bid submission are listed below:

Year	Non-performed Portion of the Contract	Contract Identification	Name & Address of Client	Reason(s) for Non- performance

Current and Past Proceedings, Litigation, Arbitration, Actions, Claims, Investigations and Disputes that could impact the financial or operational condition of the Bidder as per Section VIII – Qualification Criteria

Year	Matter in Dispute	Contract Identification	Name & Address of Client	Value of Award (Actual or Potential)

Declaration:

We, the undersigned, declare that the information provided above is true and correct. We acknowledge that misrepresentation may lead to disqualification.

This form is jointly signed by the Bidder and each member of a Joint Venture/Consortium (if applicable).

Signature: _____

Name: _____

Designation: _____

Company Name & Address: _____

Seal of the Company: _____

Date: _____

Form 4.3 Financial Capability Statements

(Ref ITB-clause 9.2, Schedule VIII: Qualification Criteria)

(To be submitted as part of Technical bid)

(on Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name_____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Note to Bidders: Fill this Form for Bidder and each member of a joint venture/ consortium or other association that is a party to Bidder to highlight conformance to Criteria 3: Financial Capability. The list below is indicative only. You may attach more documents as required. Add additional details not covered elsewhere in your bid in this regard.

Form 4.3.1: Financial Statements and Ratios

Note: Each Bidder or member of a Joint Venture/Consortium making up a Bidder must fill in this form.

Financial Data for Previous Three (3) Years			
	Year 1:	Year 2:	Year 3:
Information from Balance Sheet			
Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			
Information from Income Statement			
Total Revenues			
Profits Before Taxes			
Profits After Taxes			

Financial Ratios (Bidders to fill this table. The Procuring Entity shall verify during the review process)

Current Ratio			
Debt Ratio			

Attached are copies of financial statements (either audited financial statements supported by audit letters or certified financial statements supported by tax returns) as indicated above, complying with the following conditions.

- All such documents reflect the financial situation of Bidder or a member of a Joint venture/ consortium or other Association and not a sister or parent company.
- A Chartered accountant must audit historical financial statements.
- Historical financial statements must be complete, including all notes to the financial statements.
- Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Form 4.3.2: Average Annual Turnover

(Ref ITB-clause 9.2)

(To be submitted as part of Technical bid)

(on Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Note: Each Bidder or member of a Joint Venture/Consortium making up a Bidder must fill in these forms.

Annual Turnover Data for the Last Three (3) Years (Geospatial Services and IT/ITES-linked geospatial revenue)

Year	Turnover Amount (INR Cr)
Year 1	

Year 2	
Year 3	

Average Annual Geospatial Services Turnover: ₹_____

Note: This Form should be jointly signed by the Bidder and each member of a joint venture/ Consortium.

Form 4.3.3: Financial Resources

(Ref ITB-clause 9.2, Schedule VIII: Qualification Criteria)

(To be submitted as part of Technical bid)

(Along with supporting documents, if any)

(on Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Note: Each Bidder or member of a Joint Venture/Consortium making up a Bidder must fill in this form, specifying proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total cash flow demands of the subject Contract or contracts as indicated in Section VII: Qualification Criteria.

No.	Source of Financing	Amount (Rs Lakh)
1		
2		
3		

Note: Attach Supporting Documents – i.e., Statement from Bankers etc.

Note: This Form should be jointly signed by the Bidder and each member of a joint venture/Consortium.

Form 4.3.4: Current Contract Liabilities/ Works in Progress

(Ref ITB-clause 9.2, Schedule VIII: Qualification Criteria)

(To be submitted as part of Technical bid)

(on Company Letter-head)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Note: Each Bidder and each member of a Joint Venture/Consortium making up a Bidder should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Title, No., and date of Contract	Contracting Entity; contact details	Value of outstanding work Rs Lakh	Estimated completion date	Avg monthly invoicing over last six months (Rs Lakh)
Total Monthly Commitment				

Note: This Form should be jointly signed by the Bidder and each member of a joint venture/Consortium.

Form5: Terms and Conditions- Compliance

(Ref ITB-clause 9.2)

(To be submitted as part of Technical bid)

(on Company Letter-head)

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Note to Bidders: Fill up this Form regarding Terms and Conditions in the Tender Document, maintaining the same numbering and structure. Add additional details not covered elsewhere in your bid in this regard.

Sl. No.	Ref of Tender Document Section, Clause		Subject	Confirmation/ Deviation/ Exception/ reservation	Justification/ Reason
	Section	Clause/ sub-clause			

We shall comply with, abide by, and accept without variation, deviation, or reservation all terms and conditions of the Tender Document, except those mentioned above. If mentioned elsewhere in our bid, contrary terms and conditions shall not be recognised and shall be null and void.

(Signature with date)

.....

(Name and designation)

Duly authorized to sign bid for and on behalf of

.....

[name & address of Bidder and seal of company]

DA: If any, at the option of the Bidder.

Note: This Form should be jointly signed by the Bidder and each member of a joint venture/ Consortium.

Form 6: Checklist for Bidders

(Ref ITB-clause 9.2)
(To be submitted as part of the Technical Bid)
(On Company Letterhead)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bidder's Name: _____

[Address and Contact Details]

Bidder's Reference No.: _____

Date: _____

Note to Bidders:

This checklist must be used by bidders to confirm submission of all required documents. It is mandatory to submit this checklist along with the technical bid. All documents must be signed and self-attested wherever required.
Each JV member must submit this checklist separately.

Sr. No.	Documents / Forms to be Submitted	Yes / No / NA
1	Form 1: Bid Form (Covering Letter and Declarations)	<input type="checkbox"/>
2	Form 1.1: Bidder Information (with Authorization & Entity Registration Certificates)	<input type="checkbox"/>
3	Form 1.2: Eligibility Declarations (with applicable supporting documents)	<input type="checkbox"/>
3.a	Registration Certificate from MoCI (if bidder/subcontractor is from a restricted country)	<input type="checkbox"/>
3.b	MSME Registration Certificate (if applicable)	<input type="checkbox"/>
3.c	Startup Recognition Certificate (if applicable)	<input type="checkbox"/>
3.d	Local Supplier Certificate under Make in India (if applicable)	<input type="checkbox"/>
3.e	JV/Consortium Agreement or Letter of Intent (if applicable)	<input type="checkbox"/>
4	Form 1.3: Declaration by Agents/Associates of Foreign Principals (if applicable)	<input type="checkbox"/>
4.a	Agent/Dealer Registration Certificate (if applicable)	<input type="checkbox"/>

4.b	Power of Attorney for Agent on Non-Judicial Stamp Paper	<input type="checkbox"/>
5	Form 2: Schedule of Requirements – Compliance Statement	<input type="checkbox"/>
6	Form 3: Performance Standards & Quality Assurance – Compliance	<input type="checkbox"/>
6.a	Form 3.1: Method Statement	<input type="checkbox"/>
6.b	Form 3.2: Work Plan	<input type="checkbox"/>
6.c	Form 3.3: Personnel Deployment Plan (class- and category-wise personnel compliance)	<input type="checkbox"/>
6.d	Form 3.4: Critical Equipment Deployment Plan (as per class of bidder and category applied)	<input type="checkbox"/>
6.e	Form 3.5: Critical Materials Deployment Plan (class-based conformity)	<input type="checkbox"/>
7	Form 4: Qualification Criteria – Compliance Matrix	<input type="checkbox"/>
7.a	Form 4.1: Performance Statement (completed/ongoing projects by category)	<input type="checkbox"/>
7.b	Form 4.2: Non-Performance & Litigation Statement	<input type="checkbox"/>
7.c	Form 4.3: Financial Capability Statements (4.3.1 to 4.3.4 inclusive)	<input type="checkbox"/>
8	Form 5: Terms and Conditions – Compliance Statement	<input type="checkbox"/>
9	Form 6: Checklist for Bidders (this form, signed and filled)	<input type="checkbox"/>
10	Form 7: Bid Securing Declaration (BSD) as per RFE	<input type="checkbox"/>
11	Form 8: Integrity Pact (if applicable, as per TIS)	<input type="checkbox"/>
12	Class-Specific Certifications (NSOP, DGCA UAV Pilot License, BIS Certification, etc.)	<input type="checkbox"/>
13	Any Additional Supporting Documents as per Section VIII or other RFE Clauses	<input type="checkbox"/>

- Declaration by Authorized Signatory
- We, the undersigned, declare that:
- 1. We have reviewed and complied with all submission requirements as outlined in the RFE document.
- 2. We confirm all necessary forms and supporting documents have been submitted.
- 3. We understand incomplete, inaccurate, or missing documentation may result in bid disqualification.
- Signature: _____
- Name: _____

- Designation: _____
- Company Name & Address: _____
- Seal of the Company: _____
- Date: _____

Notes:

1. **Each member of a Joint Venture/Consortium** must submit this checklist **separately** along with their documents.
2. **Bidders must ensure** that all **mandatory documents are submitted** to avoid rejection during evaluation.
3. This checklist **must be submitted as part of the Technical Bid** and should be **duly signed** by an **authorized representative of the bidder**.

Form 7: Documents Relating to Bid Security

*(Ref ITB-clause 9.2)
(To be submitted as part of the Technical Bid)
(On Company Letterhead)*

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

Bid Securing Declaration

To
The President of India, through
Head of Procurement
[Name of the Procuring Organisation]
[Complete Address of the Procuring Entity]

Bidder's Name: _____
[Address and Contact Details]
Bidder's Reference No.: _____
Date: _____

Declaration

We, the undersigned, solemnly declare that:

1. We understand that as per the conditions of this **Request for Empanelment (RFE)**, our bid must be supported by a **Bid Securing Declaration in lieu of Bid Security**.
2. We unconditionally accept and agree to the conditions set forth in this **Bid Securing Declaration**.
3. We understand that we shall be **automatically suspended** from being eligible to participate in any future procurement process of the **Procuring Organisation** for **two (2) years** from the date of bid opening, in case we:
 - a) **Withdraw/ amend/ impair/ derogate** from our bid **within the bid validity period**.
 - b) Being notified **within the bid validity period** of the acceptance of our bid by the Procuring Entity:
 - o Fail or refuse to **produce the original documents** for scrutiny or to provide the required **Performance Security** within the stipulated time as per the RFE conditions.
 - o Fail or refuse to **sign the contract** after acceptance of our bid.

Expiry of the Bid-Securing Declaration

This **Bid Securing Declaration** shall expire if:

1. **The contract is not awarded to us**, upon:
 - a) **Cancellation of the entire tender process or rejection of all bids** by the Procuring Entity.
 - b) **Notification of the name of the successful bidder**.
2. **Forty-five (45) days** after the expiration of the **bid validity period or any extension thereof**.

Authorized Signature

Signature: _____

Name: _____

Designation: _____

Duly authorized to sign bid for and on behalf of:

[Name & Address of Bidder and Seal of Company]

Dated on _____ [insert date of signing]

Place _____ [insert place of signing]

Attachments (if applicable)

1. _____
2. _____

Notes:

1. This **Form 7: Bid Securing Declaration** must be **jointly signed** by all members of a **Joint Venture/Consortium** (if applicable).
2. This declaration is **mandatory** for all bidders, including those **exempted** from bid security submission.
3. Failure to **submit this declaration** may lead to **rejection** of the bid as non-responsive.

Form 8: Integrity Pact

(If stipulated in TIS, ref Clause 8.2.1 of ITB)

(To be signed on Plain Paper & Submitted as part of the Technical Bid)

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services.

This Integrity Pact is made on this _____ day of _____ 2025 at _____, India

BETWEEN

Procuring Organisation: [Name of Organisation], through its Head of Procurement, for and on behalf of the **President of India** (hereinafter called the "**The Principal**"), which expression shall mean and include, unless the context otherwise requires, its successors in office and assigns.

AND

M/s. _____ (hereinafter called the "**The Bidder/ Applicant**"), which expression shall mean and include, unless the context otherwise requires, its successors and permitted assigns.

PREAMBLE

1. **The Principal** intends to carry out an empanelment process for **geospatial data acquisition, processing, and feature extraction services** in a transparent and ethical manner.
2. **The Bidder/ Applicant** acknowledges the importance of integrity, fairness, and compliance with **relevant laws, regulations, and procurement principles** throughout the empanelment process.
3. To ensure a **corruption-free** and **fair evaluation**, **Independent External Monitors (IEMs)** shall oversee the entire empanelment process.

Section 1 - Commitments of the Principal

The Principal commits to:

1. **Ensure fair treatment** of all applicants during the empanelment process.
2. **Provide the same information** to all bidders and not offer any unfair advantage.
3. **Take action against any violations** of integrity norms by its employees.
4. **Ensure compliance with the Geospatial Guidelines, 2021** and other applicable government regulations.

Section 2 - Commitments of the Bidder/ Applicant

The Bidder/ Applicant commits to:

1. **Maintain ethical conduct** throughout the empanelment process.
2. **Not engage in collusion, corruption, or influence the evaluation process** in any manner.
3. **Disclose any conflict of interest** related to the empanelment.
4. **Ensure compliance with all legal and technical standards**, including the **Geospatial Guidelines, 2021** of the Government of India.

Section 3 - Consequences of Violation

If the Bidder/ Applicant violate the Integrity Pact:

1. They shall be **disqualified from the empanelment process**.
2. If already empanelled, they may face **cancellation of empanelment** and blacklisting for future procurements.
3. Any misrepresentation or fraudulent practice shall be reported to **appropriate legal and regulatory authorities**.

Section 4 - Role of Independent External Monitors (IEMs)

1. IEMs shall **review and monitor** the empanelment process.
2. They shall have **access to relevant documents** and can make recommendations for corrective action.
3. Bidders can report any grievances regarding **non-compliance with integrity norms** to the IEMs.

Section 5 - Duration & Jurisdiction

1. This Pact remains valid **until the completion of the empanelment process or termination of the empanelment agreement**.
2. Any disputes shall be settled under **Indian Law**, and the jurisdiction shall be **New Delhi, India**.

Section 6 - Signing & Acknowledgment

For and on behalf of **The Principal (Head of Procuring Organisation)**

Signature: _____

Designation: _____

Office Seal

For and on behalf of **The Bidder/ Applicant (Authorized Representative)**

Signature: _____

Designation: _____

Office Seal

Place: _____

Date: _____

Witnesses

Witness 1: Name & Address _____

Witness 2: Name & Address _____

Witness 2:

(Name & Address)

Note: This *Form* should be *jointly signed* by the *Bidder* and each member of a *joint venture/Consortium*.

Appendix to Integrity Pact

Appendix to Integrity Pact (Applicable only if foreign principal is represented by an Indian entity)

A. Eligibility and Registration of Indian Representatives

1. Any Indian firm representing a foreign principal for one or more categories of services in this RFE must be **legally registered in India** and must attach:
 - o A notarized or digitally signed **Letter of Authorization** from the foreign principal clearly specifying:
 - Scope and duration of representation.
 - Nature of relationship.
 - Specific roles and responsibilities.
 - Declaration that **no commission or remuneration is embedded in this RFE**, as no financial proposal is sought at the empanelment stage.
2. In case the Indian bidder is acting **only as a liaison or service arm**, the foreign principal must declare that **no commission-based relationship exists**, and that participation is purely for technical qualification purposes.

B. Disclosure Obligations (To be included in Form 1.3 if applicable)

1. Full name, address, and registration details of:
 - o The Indian representative.
 - o The foreign principal (manufacturer/OEM).
2. Declaration of the technical categories for which the foreign principal is being represented.
3. Undertaking that **any future commercial arrangements** (after empanelment) shall be disclosed at the financial bidding stage through project-specific RFPs.
4. Confirmation that any commission, if payable, shall be handled transparently as per Indian laws and post contract award only.

C. Non-Compliance & Misrepresentation

Any non-disclosure, misrepresentation, or false declaration shall result in:

- **Rejection of the application** at any stage.
- **Termination of empanelment**, if discovered post-selection.
- **Blacklisting or banning** from further participation in future tenders issued by Survey of India or its Geospatial Directorates.

Format 1: Contract Form

(Ref ITB-clause 13.2)

To:

The President of India, through
The Surveyor General of India
Survey of India
[Complete Address of the Procuring Entity]

Contract No: Dated:

To:

Empanelled Firm [Name]
[Complete Address of the Firm]

Subject: Agreement for Empanelment of Firms for Selection of Firms for Providing Services in High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction for Various Categories of Services

Reference:

1. **Letter of Empanelment No.** dated
2. **Tender Document No.** S-1192/752025/8/2025 dated 07-07-2025
3. Tender Title: Request for Empanelment (RFE) for Selection of Firms for Providing High-Resolution Geospatial Data Acquisition, Processing, and Feature Extraction Services
4. **Empanelment Proposal No.** Dated (If applicable)

Dear Sir/ Madam,

Your empanelment proposal, read with your subsequent communications as referenced above, for technical qualification under the services stipulated in the annexed schedules, has been **accepted**. The **terms and conditions** outlined in this contract and referenced documents shall apply.

- **Empanelment Terms & Conditions:**
The empanelment is valid for **three (3) years** from the date of signing, extendable based on performance and requirements.
- **Selection for Projects:**
Project-specific **financial bidding** shall be invited from empanelled firms as per project requirements.

(Signature, Name & Address of Procuring Entity's Authorized Official)
For and on behalf of _____

(Signature, Name & Address of Empanelled Firm's Authorized Official)
For and on behalf of _____
(Seal of the Firm)

Format 1.1: Description of Services

(Aligned with the Proposed RFE Categories)

To:

The Surveyor General of India
Survey of India
[Complete Address of the Procuring Entity]

Tender Document No. S-1192/752025/8/2025 dated 07-07-2025

Empanelled Firm: _____

Contract No. _____

Date: _____

Service Categories Applied For:

(Tick applicable service categories as per Schedule VI - Services and Activities Schedule)

Category No.	Category of Service	Scope of Work
1	Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM)	2D/3D Mapping using UAVs equipped with nadir cameras for ORI and DSM generation.
2	Drone Services for 3D City Model	3D City Mesh Model generation using UAVs equipped with oblique cameras (1 nadir & 4 oblique).
3	Drone Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR	Terrain mapping using UAVs fitted with nadir cameras and LiDAR sensors for ORI, DSM/DTM generation.
4	Manned Aerial Services for Ortho Rectified Imagery (ORI) and Terrain Survey using LiDAR	2D/3D mapping using manned aerial platforms (aircraft/helicopter) fitted with nadir cameras and LiDAR sensors.
5	Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR	3D City Model and LiDAR-based Terrain Survey using aircraft/helicopters equipped with oblique cameras (1 nadir & 4 oblique) and LiDAR sensors.
6	2D Feature Extraction Services	GIS-based 2D feature digitization and dataset generation from ORI and satellite imagery.
7	3D Feature Extraction and Vector Model Services	3D feature extraction using LiDAR and stereo photogrammetry for building models, structures, and terrain classification.
8	DSM to DTM Conversion Services	Surface-to-terrain classification and point cloud processing from LiDAR/stereo imagery.
9	Geo-Positioning Services - Horizontal Control	Establishment of GNSS-based ground control points and geo-referencing for aerial surveys.
10	Geo-Positioning Services - Vertical Control	High-precision leveling and vertical control survey for geodetic applications.
11	Georeferencing Services	Transformation of old maps and legacy records to WGS-84 using satellite imagery and control points.

We acknowledge that empanelment does not guarantee project allocation and that financial bidding shall be required for specific projects.

(Signature & Seal of Empanelled Firm)

Format 1.1.1: Personnel Deployment Plan

(Ref: ITB-clause 9.2, Schedule VIII-1: Key Personnel Schedule)

- To be submitted as part of the technical bid**
- Minimum personnel requirement as per empanelment category applied**
- (Signature & Seal of Empanelled Firm)**

(Ref: Section VIII-1, RFE & Schedule 1 of Contract)

Sr. No.	Position	Minimum Qualification	Minimum Relevant Experience (Years)	Minimum Number to Be Deployed / Certification
1	Project Manager	B.Tech/ M.Tech in GIS/Remote Sensing/ Engineering or MBA (Project Mgmt.)	5	1 / —
2	LiDAR Specialist	B.Tech/Diploma in Geospatial/ Engineering	3	2 / —
3	UAV/Drone Pilot	DGCA Certified UAV Pilot	2	5 (Class C); scalable / DGCA RPAS Certification
4	Aircraft Pilot	DGCA Certified CPL Holder	2	1 / Commercial Pilot License
5	Photogrammetry Specialist	Diploma/Degree in Remote Sensing/Photogrammetry	3	2 / —
6	GIS Analyst	M.Sc./B.Tech in GIS/Remote Sensing	3	5 / —
7	Feature Extraction	Diploma/B.Tech in GIS/Remote Sensing/	3	20 / —

	Specialist	Engineering		
8	QA/QC Specialist	B.Tech/Diploma + ISO 9001 certification preferred	3	5 / —
9	Surveyor (GNSS/Levelling)	Diploma/B.Tech in Surveying/ Engineering	3	10 / —

Note: Class-wise minimum requirements shall be referred from Section VIII of the RFE and must be matched or exceeded in the respective Work Plan at the time of project execution.

Annexure-B: Equipment Deployment Commitment

(Ref: Section VIII-2, RFE & Schedule 2 of Contract)

Equipment Sr.	Category	Technical Specifications	Minimum Number to Be Deployed (as per Class)	Ownership Details (Owned / Leased)	Remarks
1	UAV/Drone	PPK/RTK-enabled, Type-certified	Class C: 3; Class B: 5; Class A: 12; Class A+: 20	[To be specified]	As per category
2	Aircraft/Helicopter	Nadir + Oblique Camera and LiDAR	Min. 1 for Manned Aerial Services	[To be specified]	—
3	Nadir Camera	≤ 5 cm GSD (UAV); ≤ 10 cm GSD (Aircraft)	1 per platform	[To be specified]	—
4	Oblique Camera	4 Oblique + 1 Nadir	For 3D services	[To be specified]	—
5	LiDAR Sensor	≥ 10 pts/m ² (UAV); ≥ 30 pts/m ² (Aircraft)	Class B+: 2	[To be specified]	—
6	GNSS Receivers	Dual-frequency RTK/PPK	Min. 5	[To be specified]	—
7	Digital Level	Digital/Auto + Invar Staff	Min. 3	[To be specified]	For vertical control

8	Workstations	GPU-enabled for LiDAR/Photogrammetry	Min. 5 per project	[To be specified]	—
9	LiDAR Processing Software	Terrasolid, Leica Cyclone, etc.	Min. 3 Licenses	[To be specified]	—
10	Photogrammetry Software	Pix4D, Agisoft, Inpho, etc.	Min. 5 Licenses	[To be specified]	—
11	2D/3D GIS Extraction Software	Bentley, Esri, CityEngine	Min. 20 Licenses	[To be specified]	—
12	GIS Software for QA/QC	ArcGIS, QGIS, Global Mapper or equivalent software with similar capabilities)	Min. 5 Licenses	[To be specified]	—
13	Data Storage Devices	Min. 100TB storage per project	1 per project	[To be specified]	Cloud/NAS

Standard Lease Agreement Format for Equipment

This Live Lease Agreement is made on this [Date] between:

1. LESSOR:

Name:

Address:

Contact Details:

AND

2. LESSEE (Bidder):

Name:

Address:

Contact Details:

Whereas the Lessor agrees to lease to the Lessee certain equipment for the purpose of executing geospatial services as per the empanelment with Survey of India.

1. Description of Equipment:

- Equipment Type:
- Make/Model:
- Serial Number:
- Specifications:

2. Lease Period:

The lease shall commence on [Start Date] and remain in effect until [End Date], unless terminated earlier under the terms of this Agreement.

3. Payment Terms:

The Lessee shall pay to the Lessor a rental fee of ₹[Amount] per [day/week/month] for the use of the equipment.

4. Ownership and Title:

The Lessor retains full ownership and title of the equipment at all times.

5. Use and Maintenance:

The Lessee agrees to use the equipment solely for the authorized purpose and to maintain it in good working condition.

6. Insurance:

The Lessee shall ensure the equipment is insured against loss, theft, or damage for the duration of the lease period.

7. Return of Equipment:

The Lessee shall return the equipment in good working condition at the end of the lease period.

8. Governing Law:

This Agreement shall be governed by the laws of India.

Signed:

Lessor (Name & Signature)

Lessee (Authorized Signatory)

Date: _____

Date: _____

Annexure-C: Materials Deployment Commitment

(To be appended as Format 1.1.3)

Item	Description	Minimum Required (Class-Based)	Location of Availability / Ownership
1	Ground Control Markers	Min. 10 per sq. km for UAV projects	Field / Owned-Reusable
2	GNSS Base Stations	As per Geo-Positioning Services	Site / Owned-Leased
3	High-Speed Data Transfer Tools	Encrypted file transfer system	Processing Unit / Owned
4	QA/QC Tools	Automated Accuracy Assessment Suite	Central QA Unit / Licensed
5	Backups and Data Archive	Scalable (Min. 100TB)	HQ / Cloud-NAS

Format 1.2: Price Schedule

No Financial Quote Required for Empanelment

(Financials to be sought only during project-based selection)

Format 1.3: Bank Guarantee Format for Performance Security

(To be provided only at the time of project allocation)

Format 1.4: No Claim Certificate

(To be submitted upon completion of project-based work)

Format 2: Authorization for Attending Pre-Bid Conference

(To be submitted if attending the pre-bid meeting)

Sr. No. Name Government ID Type & Number

1

2

(Signature & Seal of Empanelled Firm)

Tender ID: 2025_SOI_867797_1

Tender Reference Number: S-1192/752025/8/2025

Tender Title: Request for Empanelment (RFE) of Firms for Providing Various Geospatial Services

Record of Proceedings of the Pre-Bid Meeting

Date: 18 July 2025

Time: 11:30 AM

The Request for Empanelment (RFE) titled “**Empanelment of Firms for Providing Various Geospatial Services**” was published on the CPP Portal on **07 July 2025 at 05:00 PM**.

In connection with this, an online pre-bid meeting with prospective bidders was convened on **17 July 2025 at 11:00 AM**.

During the meeting, all participating bidders and their representatives were given ample opportunity to raise queries and seek clarifications on various aspects of the RFE. The majority of the queries were focused on the technical specifications and deliverables outlined in the tender document.

The **summary of queries, suggestions, clarifications, and any proposed amendments** to the RFE is compiled and enclosed as **Annexure A**.

This Pre-Bid Clarification Report will be published on the CPP Portal for the information of all concerned stakeholders once approved by competent authority.


(UPKAR PATHAK)
Superintending Surveyor, SGO
Dehradun
Member

D.N PATHAK
Digitally signed by D.N
PATHAK
Date: 2025.07.26 14:16:51
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(D.N.PATHAK)
Director
UPGD, Lucknow
Member

SANDEEP
SHRIVASTAVA
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SANDEEP SHRIVASTAVA
Date: 2025.07.26 16:48:11
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(SANDEEP SHRIVASTAVA)
Addl. SG,GRF& DED,
Director
NGDR&UGI, Dehradun
Member

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Date:
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Palam, Delhi Cantt
Chairman, CMC

Annexure-A

Item: "Request For Empanelment (RFE) of Firms for providing various Geospatial Services".

Pre-Bid Queries-

Sl. No.	RFP Section/Clause/Page Number/ Reference Clause	Clause as per RFP	Query	Clarification
1.	Page No. 5 Section I: Notice Inviting Empanelment (NIE) 1.1 Introduction	Firms currently executing SoI projects may be considered for Class C empanelment with relaxation in project volume criteria only, subject to: - Submission of valid work order and satisfactory performance report, and - Fulfilment of all other qualification criteria including turnover, manpower, equipment, and certifications.	<p>We are an existing empanelled vendor with Survey of India and have been undertaking drone surveys for multiple GDCs. Based on this, we understand that we would be exempted from the previous experience criteria for 9 out of the 11 services (since we are not opting for Manned Aerial Services), provided we meet all other qualification requirements.</p> <p>Accordingly, we believe we would qualify for Class-C empanelment.</p> <p>Kindly confirm if our understanding is correct.</p> <p>If our above understanding is correct, we would like to take clarification further —</p> <p>Since our turnover and other qualification criteria are met, can we also apply for Class-B empanelment for specific categories, even though we are eligible for Class-C based on exemption from the experience criteria for all the categories?</p> <p>Kindly confirm.</p>	<p>The clause is retained as per the published RFE. Empanelled vendors with proven performance may be considered technically qualified for the same service categories they were previously empanelled under, subject to meeting all other current qualification criteria. However, for applying to a higher class (e.g., Class-B), the firm must independently meet all class-specific eligibility criteria, including experience, financials, and equipment. Prior empanelment or exemption under Class-C does not extend to higher classes.</p> <p>Therefore, you may apply for Class-B where eligible, but exemptions will apply only for Class-C and previously empanelled service categories.</p>
2.	Pg. no 6 Section I: Notice Inviting Empanelment (NIE)	The Survey of India seeks to empanel firms under the following 11 service categories, each with a 3-year empanelment validity.	Is the service provider company may request for empanelment from some of services or its necessary to apply for all 11	Service providers are not required to apply for all 11 categories. They may apply for empanelment in one or more specific service

	1.3 Scope of Empanelment		categories? Please confirm.	categories based on their technical capability, experience, and resource availability. Each category will be evaluated independently as per the criteria defined in the RFE.										
3.	<p>PageNo:7 Section I: Notice Inviting Empanelment (NIE)</p> <p>Clause:1.4.1Empanelment Process</p>	<p>This RFE introduces a class-based structure to ensure level playing field for firms with varying financial and technical capacity:</p> <table border="1"> <thead> <tr> <th>Class</th> <th>Turn Over Range (INR Cr)</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>2.5 – 5</td> </tr> <tr> <td>B</td> <td>>5-10</td> </tr> <tr> <td>A</td> <td>>10 -50</td> </tr> <tr> <td>A+</td> <td>>50</td> </tr> </tbody> </table>	Class	Turn Over Range (INR Cr)	C	2.5 – 5	B	>5-10	A	>10 -50	A+	>50	<p>1. For multi-class companies (e.g., Class A+ firms), can higher-class firms be invited to bid for lower-class projects (e.g., Class B) without restriction?</p> <p>2. Can a company empanelled for different categories under different classes based on the availability of Critical Equipment availability for the respective category (ex. One company having A+ class for category no. 4 as well as C class for category no. 1)?</p> <p>Please clarify for the above.</p>	<p>Yes, higher-class firms (e.g., Class A+) may be invited to bid for lower-class projects (e.g., Class B or C) without restriction, provided they are empaneled in the relevant category. A firm may also be empaneled in different classes for different service categories based on the availability and declaration of category-specific Critical Equipment, manpower, and past experience. Class-wise eligibility is determined independently for each category during technical evaluation.</p>
Class	Turn Over Range (INR Cr)													
C	2.5 – 5													
B	>5-10													
A	>10 -50													
A+	>50													
4.	<p>PageNo:7 Section I: Notice Inviting Empanelment (NIE)</p> <p>Clause: 1.4.2Empanelment Review:</p>	<p>The empanelment process under this RFE shall remain dynamic in nature. In addition to the current round of empanelment, the Sol reserves the right to issue rolling empanelment notices at its discretion. These shall allow new eligible firms or existing firms upgrading their class or service categories to submit applications for empanelment.</p>	<p>We are requesting you to continue the selected pool of firms through this empanelment for the next three years, based on their performance evaluation, keeping the provision of adding new firms only after three years' period.</p> <p>Adding of new firms should only be considered in case of minimum required qualified firms (at least three) are not available for any of the categories.</p> <p>Please consider and confirm.</p>	<p>This is a dynamic empanelment intended to maintain a competitive and capable pool of technically qualified firms over the three-year period. While firms with consistent good performance will continue to remain empaneled, the RFE allows new eligible firms to apply during the empanelment period to ensure flexibility, inclusivity, and adequate competition. However, onboarding of new firms will be based on need and capacity requirements, and all firms will be subject to performance monitoring and periodic review.</p>										

<p>5. Page No. 7 Section I: Notice Inviting Empanelment (NIE)</p> <p>1.4.1 Empanelment Process</p>	<table border="1"> <thead> <tr> <th>Class</th><th>Turnover Range (INR Cr)</th></tr> </thead> <tbody> <tr> <td>C</td><td>2.5 – 5</td></tr> <tr> <td>B</td><td>>5 – 10</td></tr> <tr> <td>A</td><td>>10 – 50</td></tr> <tr> <td>A+</td><td>>50</td></tr> </tbody> </table> <p>Empanelment is open to all classes. Firms must submit technical documents aligned to the class and categories they are applying for.</p>	Class	Turnover Range (INR Cr)	C	2.5 – 5	B	>5 – 10	A	>10 – 50	A+	>50	<p>Please confirm whether higher revenue class can bid for lower revenue classes also eg- A firm classified as Class A+ is also eligible to bid for projects under Classes A, B, and C?</p>	<p>Firms in higher classes may apply for lower class categories, provided they fulfill all eligibility criteria for the selected category.</p>
Class	Turnover Range (INR Cr)												
C	2.5 – 5												
B	>5 – 10												
A	>10 – 50												
A+	>50												
<p>6. Page No. 7 Section I: Notice Inviting Empanelment (NIE)</p> <p>1.4.1 Empanelment Process</p>	<table border="1"> <thead> <tr> <th>Class</th><th>Turnover Range (INR Cr)</th></tr> </thead> <tbody> <tr> <td>C</td><td>2.5 – 5</td></tr> <tr> <td>B</td><td>>5 – 10</td></tr> <tr> <td>A</td><td>>10 – 50</td></tr> <tr> <td>A+</td><td>>50</td></tr> </tbody> </table> <p>Empanelment is open to all classes. Firms must submit technical documents aligned to the class and categories they are applying for.</p>	Class	Turnover Range (INR Cr)	C	2.5 – 5	B	>5 – 10	A	>10 – 50	A+	>50	<p>The turnover range for Categories A and A+ appears significantly higher in comparison to other classes. Above 10cr value, the ranges should be reconsidered as below given the realities of Geospatial companies in India.</p> <p>Eg- Class C as 2.5 to 10, Class B as >10-25, class A as >25-50 and Class A+ >50</p>	<p>The clause is retained as per the published RFE.</p> <p>No Change.</p>
Class	Turnover Range (INR Cr)												
C	2.5 – 5												
B	>5 – 10												
A	>10 – 50												
A+	>50												
<p>7. Page No.: 7 Section I: Notice Inviting Empanelment (NIE)</p> <p>1.4.2 Empanelment Review</p> <p>Section I: Notice Inviting Empanelment (NIE),</p>	<p>The empanelment process under this RFE shall remain dynamic in nature. In addition to the current round of empanelment, the SoI reserves the right to issue rolling empanelment notices at its discretion.</p> <p>These shall allow new eligible firms or existing firms upgrading their class or service categories to submit applications for empanelment.</p>	<p>Were quest to give more clarity on “Process like, if we are not eligible at this dynamic in nature” in the empanelment instant due to constrain in similar project experience in completion of 80% as asked in the qualification criteria being a startup. Could we be able to participate in the due course of time (within 3 years as per the empanelment notice) and what maybe the process for it. Shall we submit the application at this instant, if yes what documentation do we need to submit at this point? If no, how and when we can be able to submit our response to SOI without any notice.</p> <p>Request for clarification. Please.</p>	<p>This is a dynamic empanelment valid for three years. Firms, including start-ups, that do not currently meet the eligibility criteria—such as completion of at least 80% of the required project scope—may submit their application at a later stage during the empanelment period once they become eligible. There is no requirement to submit an application at this stage if the criteria are not met. Once eligible, firms can apply directly through the same e-procurement portal following the published RFE terms, without the need for a new notice. The same documentation requirements as outlined in the RFE will apply at the time of submission.</p>										

8.	<p>PageNo.:7 Section I: Notice Inviting Empanelment (NIE)</p> <p>1.4.2 Empanelment Review SectionI: Notice Inviting Empanelment (NIE),</p>	<p>Such rolling applications shall be invited through periodic public notices and will be subject to the same qualification criteria, evaluation process, and documentation requirements as specified in this RFE.</p>	<p>We request to provide the clarity of periodic notice for empanelment in terms of interval (in months, whether it in every six months in the duration of three years).Please clarify.</p>	<p>This is a continuously open, dynamic empanelment valid for three years. There is no fixed interval (e.g., six months) for inviting applications. Eligible firms may submit their empanelment applications at any time during the empanelment period through the e-procurement portal, and evaluations will be conducted periodically based on administrative scheduling and volume of applications received. No separate periodic notice is required.</p>
9.	<p>Page No. 8 Section I: Notice Inviting Empanelment (NIE)</p> <p>1.4.3 Project-Based Financial Bidding Scale ability and Resource Mobilization:</p> <p>Page No. 8 ✓Scalability &Resource Readiness:</p>	<ul style="list-style-type: none"> Empanelled firms must demonstrate their ability to scale resources and personnel for future projects as required. Firms will be required to submit a resource mobilization plan as part of their project-specific bid responses. Empanelled firms may be required to demonstrate their ability to scale resources for large projects. Firms will be required to maintain declared technical capabilities throughout the empanelment period. 	<p>Without a clear projection of work allocation at the time of empanelment, it becomes challenging for service providers to effectively demonstrate resource scalability. Additionally, requiring project-specific bid submissions after empanelment appears to be adding to the technical compliance burden repeatedly. Since, the purpose of empanelment is to pre-qualify capable vendors, it is recommended that project specific bids should only seek financial submission.</p>	<p>Empanelment is intended solely to pre-qualify technically capable firms, while project-specific bids will only seek financial submissions to ensure fair competition based on actual project scope, area, and timelines. Firms are not required to resubmit full technical compliance at the project stage, except for project-specific declarations or execution plans if needed. Work allocation projections are not feasible at the empanelment stage due to the dynamic and demand-based nature of geospatial assignments. This two-stage process ensures transparency, scalability, and efficiency for both the client and service providers.</p>
10.	Page No. 9 For all the services	<ul style="list-style-type: none"> The Survey of India seeks to empanel firms under the following 11 service categories. 	<p>We request you to consider the work experience of projects executed over the last 10 years for all the 11 services.</p>	<p>No change.</p>
11.	Page No 9 Section I: Notice Inviting Empanelment (NIE) 3. Eligibility Criteria for Participation in this	<p>Not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of aforesaid reasons.</p>	<p>What is the meaning of “must not be the subject of legal proceedings for any of the aforesaid reasons” Company must be not involved in any court case matter? Kindly remove this clause or read it as No</p>	<p>The phrase “must not be the subject of legal proceedings for any of the aforesaid reasons” refers specifically to cases involving bankruptcy, insolvency, winding up, or suspension of business operations. It does not</p>

	Tender		bankrupt or being wound not be business activity suspended by SOI or any other Govt. entity. Kindly explain.	refer to general civil or commercial litigation unrelated to financial or operational eligibility. The intent is to ensure that participating firms are financially solvent and operationally active. No amendment is proposed, as the clause aligns with standard procurement norms.
12.	Page No 12 Section I: Notice Inviting Empanelment (NIE) 6. Submission of Bids:	Since documents are digitally signed at the time of submission on the e-Procurement Portal, physical submission of documents (except EMD, wherever applicable) is not required. The Procuring Entity may request physical verification of specific documents only from the successful bidder(s) if necessary.	Is the hard copy of Bid not needs to be submitted? Kindly confirm	As per the current RFE provisions, there is no requirement for submission of hard copy (physical) bid documents . All submissions are to be made online only through the e-procurement portal as per the instructions specified in the RFE. Bidders are advised to follow the digital submission process strictly.
13.	Page No 16 Section I: Notice Inviting Empanelment (NIE) Appendix to NIE: Tender Information Summary 3.CRITICAL DATES (ITB 7.0, 8.0, 9.0, 10.0 & 11.0)	Bid Submission Closing Date & Time 18/07/2025, 1800 hrs	As per tender document the pre bid release date will be 25-Jul 2025. So considering this we request you to kindly provide at least 2 weeks' time from the date of pre bid query release from your office.	The request is noted. The bid submission timeline will be reviewed, and an extension of up to two weeks from the date of release of pre-bid clarifications may be considered to ensure adequate time for bidders to prepare their responses. Any extension, if approved, will be notified through a corrigendum on the e-procurement portal.
14.	Page No 16 Section I: Notice Inviting Empanelment (NIE) Appendix to NIE: Tender Information Summary 3. CRITICAL DATES (ITB 7.0, 8.0, 9.0, 10.0 & 11.0)	Bid Submission Closing Date & Time 04/08/2025, 10:00 hrs	We respectfully request that a minimum of 15 days be allowed for bid submission from the date of publication of consolidated replies to pre-bid queries and pre-bid meeting out comes. Given the importance of pre-bid clarifications to incorporate in bid proposals, adequate time is essential to thoroughly review the responses and ensure compliance with project requirements. A minimum of 15 days is necessary after publication of pre-bid replies to prepare a well-structured,	The request is noted. The bid submission timeline will be reviewed, and an extension of up to two weeks from the date of release of pre-bid clarifications may be considered to ensure adequate time for bidders to prepare their responses. Any extension, if approved, will be notified through a corrigendum on the e-procurement portal.

			competitive and fully compliant proposal. Kindly consider.	
15.	<p>Page No 16 Section I: Notice Inviting Empanelment (NIE)</p> <p>Appendix to NIE: Tender Information Summary</p> <p>3.CRITICAL DATES</p>	<p>Bid Submission Closing Date &Time</p> <p>04/08/2025, 1000 hrs</p>	<p>We request to extend the bid submission due date by at least 15 days from the publication of pre-bid response.</p>	<p>The bid submission deadline will be reviewed, and an extension up to 2 weeks from the date of publication of pre-bid clarifications may be considered to allow sufficient time for bidders to prepare their responses. Any extension, if approved, will be formally notified through a corrigendum on the e-procurement portal.</p>
16.	<p>Page Nos. 16&17 Section I: Notice Inviting Empanelment (NIE)</p> <p>Appendix to NIE: Tender Information Summary</p> <p>Clause: 3.CRITICAL DATES (ITB7.0, 8.0,9.0, 10.0&11.0)</p>	<p>Pre-Bid Meeting Date: 18/07/2025</p> <p>Bid Submission Closing Date &Time:</p> <p>04/08/2025</p>	<p>We are requesting you to provide at least 3 weeks' time from date of publishing the pre-bid clarifications for submission of empanelment. Accordingly, please extend the submission date. Kindly consider.</p>	<p>The request is noted. The timeline for bid submission will be reviewed, and if necessary, an extension of up to 2 weeks from the date of publishing pre-bid clarifications may be granted to ensure sufficient time for firms to incorporate responses. Any extension, if approved, will be notified through a corrigendum on the e-procurement portal.</p>
17.	<p>Page Nos: 17 Section I: Notice Inviting Empanelment (NIE)</p> <p>Appendix to NIE: Tender Information Summary</p> <p>Clause: 4. ELIGIBILITY TO PARTICIPATE (NIE 3 & ITB 3.2)</p>	<p>Nature of Eligible Bidders-Individual Service Providers, Firms, Joint Ventures, or Consortiums (Maximum of 2 Firms).</p>	<p>We are requesting you not to allow any JV/consortium participation because the provision for leasing of equipment and subcontracting has already been factored. Moreover, there is no guarantee for JV/Consortium partners to stay together all the three years for various reasons.</p> <p>Please consider and confirm.</p>	<p>The concern is noted. However, to encourage broader participation and leverage complementary capabilities, JV/Consortium participation is permitted under this RFE with defined responsibilities and declarations. Since provisions for equipment leasing and subcontracting are already available, JV/Consortium participation remains optional—not mandatory. Empanelment is granted only if the JV/Consortium collectively fulfills the eligibility criteria, and all members are jointly responsible for compliance throughout the empanelment period. Suitable</p>

				safeguards are included to ensure continuity and accountability.
18.	PageNo.:18 Section I: Notice Inviting Empanelment (NIE) Appendix to NIE: Tender Information Summary PRE-BID CONFERENCE(ITB 8.0),	18/07/2025, 1130 hrs. at Conference Hall, Survey of India Surveyor General's office, Survey of India, Hathibarkala Estate, Dehradun	We request you to conduct the pre bid meeting online and share the meeting link for larger participation across PAN India.	Pre bid held both in Hybrid mode with notification on CPP Portal.
19.	Page No.-20 Section I: Notice Inviting Empanelment (NIE) Appendix to NIE: Tender Information Summary 10.DOCUMENTS RELATINGTOBID SECURITY&PERFORMANCE SECURITY	In addition, technically qualified bidders will be required to pay a non-refundable Empanelment Registration Fee of ₹25,000 at the time of empanelment confirmation.	Request to Exempt Registration Fees for MSME Bidder.	The clause is retained as per the published RFE. The registration fees for empanelment processing are administrative in nature and not covered under standard fee exemptions.
20.	Page No. 20 Section I: Notice Inviting Empanelment (NIE) Appendix to NIE: Tender Information Summary Last date of submission 3. CRITICAL DATES (ITB 7.0, 8.0, 9.0, 10.0 & 11.0)	3. CRITICAL DATES (ITB 7.0, 8.0, 9.0, 10.0 & 11.0)	We kindly request you to consider extending the tender submission deadline by at least two weeks from the date of release of the pre-bid clarifications. This extension will allow us sufficient time to incorporate the clarifications into our proposal and ensure a comprehensive and competitive submission.	The request is noted. The bid submission timeline will be reviewed, and an extension of up to two weeks from the date of release of pre-bid clarifications may be considered to ensure adequate time for bidders to prepare their responses. Any extension, if approved, will be notified through a corrigendum on the e-procurement portal.

21.	<p>Page No. 21 Section I: Notice Inviting Empanelment (NIE)</p> <p>Appendix to NIE: Tender Information Summary</p> <p>Attachment 1 to TIS: STATE/UT- WISE SERVICE CATEGORY SELECTION FOR EMPANELMENT</p>	<p>Bidders must indicate the states/UTs where they seek empanelment for specific service categories.</p>	<p>We understand that out 11 services its not necessary to pick all the services for any states/UT. The vendor can choose and pick as per their capability. Kindly confirm.</p>	<p>Yes, vendors are free to choose any combination of services and States/UTs based on their technical capability, resource availability, and strategic interest. It is not mandatory to apply for all 11 service categories or cover all States/UTs. Each application will be evaluated independently for the selected services and regions.</p>
22.	<p>Page No. – 21 Section I: Notice Inviting Empanelment (NIE)</p> <p>Appendix to NIE: Tender Information Summary</p> <p>Attachment1to TIS: STATE/UT- WISE SERVICE CATEGORY SELECTION FOR EMPANELMENT</p>	<p>✓Bidders must indicate the states/UTs where they seek empanelment for specific service categories.</p> <p>✓Bidders can apply for multiple states/UTs and multiple service categories.</p> <p>✓Only those empanelled in a state/UT will be eligible for project-specific financial bidding in that region</p>	<p>Kindly consider revising the empanelment process by selecting service providers on a <i>region-wise</i> basis for categories such as Drone, DGPS, and Leveling services. However, for services related to Aircraft-based surveys and feature extraction, a Pan India empanelment approach is recommended.</p> <p>This is because only a limited number of companies possess the required Aircraft based platforms, specialized equipment, technical expertise, and field experience necessary to conduct aerial surveys at a national scale. Therefore, restricting selection to a state-wise basis for such specialized services could hinder efficiency, competition and coverage.</p> <p>Furthermore, certain terrains — including red zones, high-altitude regions, and coastal areas — present unique operational and regulatory challenges. A service provider who gets shortlisted for J&K or Kerala, is likely to face Continuous and permanent sort of challenges as against</p>	<p>The clause is retained as per the published RFE. There is no restriction on opting for one or many states & UT's for different category of services.</p>

			a service provider who gets Madhya Pradesh or Telangana. This will create an uneven bias. Hence, empanelment for drone services is recommended to be done region-wise, so that the risks and rewards are evenly distributed among all empanelment vendors.	
23.	PageNo:21-23 Section I: Notice Inviting Empanelment (NIE) Appendix to NIE: Tender Information Summary Clause: Attachment 1 to TIS: STATE/UT-WISE SERVICE CATEGORY SELECTION FOR EMPANELMENT	State/UT-Wise Service Category Selection Table	Can a selected firm add new States/UTs or delete some of the States/UTs, based on the prevailing administrative/ operational challenges, from their empaneled states/UTs during the course of three years' empanelment? Please clarify.	Yes, since this is a dynamic empanelment valid for three years, an empaneled firm may request to add or remove States/UTs from their empaneled preferences during the empanelment period, subject to approval by the competent authority. Such changes must be justified based on administrative, operational, or resource availability considerations and will be reflected after due verification of capacity and past performance, where applicable.
24.	Page No:24 Section II: Instructions to Bidders (ITB)	Empanelment is valid for three (3) years, with six-monthly performance reviews and provisions for upgradation or degradation of empanelment class.	The performance will be reviewing once the any SOW tender float and award the work to company. Kindly clarify.	Yes, performance of empaneled firms will be reviewed after award of work under project-specific Scope of Work (SOW) tenders. Key Performance Indicators (KPIs) such as quality, timeliness, and compliance with specifications will be monitored during project execution. These performance reviews will inform future work allocations and continued empanelment validity.
25.	Page No. 25 Section II: Instructions to Bidders (ITB)	8.Pre-bidConference	Kindly provide the link for the online pre-bid meeting, as we intend to attend the session virtually	Pre bid held both in Hybrid mode with notification on CPP Portal.

26.	<p>Page No. 26 Section II: Instructions to Bidders (ITB) 1.4.5 Section VII: Performance Standards and Quality Assurance</p>	<p>3) Bidders must fill up the following Forms regarding this Schedule: a) Form 3: Performance Standards and Quality Assurance - Compliance b) Form 3.1: Method Statement c) Form 3.2: Work-Plan d) Form 3.3: Personnel Deployment Plan e) Form 3.4: Equipment Deployment Form f) Form 3.5: Materials Deployment Plan.</p>	<p>Kindly confirm that all the activity should be executed at SOI onsite at the state where the tender float or some of can be executed from participated company office space also. For example, except data acquisition rest of activity executed from self-office facility. Kindly confirm on this. Please confirm Bidder must have to be submitted work plan for all applying services category.</p>	<p>Activities such as data acquisition must be conducted onsite as per project location and SOW. However, post-processing tasks—such as data cleaning, feature extraction, and quality checks—may be executed at the bidder's own office or processing facility, subject to compliance with data security and project-specific instructions. Yes, bidders are required to submit an indicative work plan for each service category they are applying for, demonstrating their understanding and operational readiness.</p>
27.	<p>Page No: 26 Section II: Instructions to Bidders (ITB) Clause: Section V – Special Conditions of Empanelment, Clause SCE 9.1 & 9.2</p>	<p>In case of a conflict, provisions of SCE shall prevail over those in the GCE. Any generic reference to GCE shall also imply a reference to SCE as well. In case of any conflict, provisions of GCE/ SCE shall prevail over those in ITB/ AITB. Bidders must fill up 'Form 5: Terms and Conditions - Compliance' regarding any deviations from terms and conditions in this and other Schedules.</p>	<p>As per Clause SCE 9.2, monthly on-account payments may be made based on certified inputs. However, the RFP does not mention a time limit for certification.</p> <p>Could you please clarify whether there is a defined maximum number of days within which the Contract Manager is required to either approve or return submitted monthly bills for revision?</p>	<p>As this RFE is for technical empanelment only, provisions related to billing, certification, and payment timelines will be defined in the project-specific financial bidding documents. However, as per standard government practices, certification of monthly bills is typically expected within 15–30 days of submission, subject to completeness and accuracy of supporting documents. Specific timelines will be detailed in the Special Conditions of Contract (SCC) of each project.</p>
28.	<p>Page No: 30 Section II: Instructions to Bidders (ITB) 3.1.1 Joint Venture/Consortium</p>	<p>(e) Each partner should meet at least 25% (and the lead partner at least 50%) out of the qualifying limit in case of "Experience and past Performance – "Similar Experience" and "Financial Turnover". However, together JV/C should meet the full Qualification requirement.</p>	<p>We kindly request to allow the JV/Consortium without having any min. percentage of qualification of experience and past performance – similar experience and financial turnover.</p> <p>This will enable to participate Indian Startup and MSME Organization at least to work with the Lead Partner as there has been no relation provided in the tender for Startup and MSME as per Govt. of India rule.</p>	<p>The RFE permits JV/Consortium participation to encourage collaboration between experienced firms and emerging entities such as start-ups and MSMEs. However, to maintain accountability and ensure capability, minimum thresholds for experience and turnover are required from each consortium member. No change.</p>

29.	<p>Page No: 31 Section II: Instructions to Bidders (ITB)</p> <p>Clause: 3.1.2 Sub-Contractors</p>	<p>The total value of the sub-contracting portion of services must not exceed the percent of the contract price as specified in the Tender Document/Contract (if not so specified 25 (twenty-five) percent). Sub- contracting by the contractor without the approval of the Procuring Entity shall be a breach of contract.</p>	<p>Can empanelled firms subcontract specific services to non-empanelled third-party firms with due intimation to SOI at that point in time, if the subcontracted scope remains within the 25% limit?</p> <p>Please confirm.</p>	<p>Yes, empaneled firms may subcontract specific components of work to non-empaneled third-party firms, provided the subcontracted scope does not exceed 25% of the total project scope and prior intimation is given to SOI. The primary empaneled firm will remain solely responsible for the quality, compliance, and timely delivery of the entire assignment. All subcontracting arrangements must comply with the conditions specified in the project-specific financial bidding documents and contract agreement.</p>
30.	<p>Page No:34 Section II: Instructions to Bidders (ITB)</p> <p>4.1 Make in India Order</p> <p>4.1.1 Categories of Local Suppliers</p>	<p>1) 'Class-I local Supplier' with local content equal to or more than that prescribed in TIS or 50% if not prescribed.</p> <p>2) 'Class-II local Supplier' with local content equal or more than that prescribed in TIS or 20% if not prescribed, but less than that applicable for Class-I local Supplier.</p> <p>3) 'Non - Local Supplier' with local content less than that applicable for Class-II local Supplier, in sub-clause above.</p>	<p>The <i>Make in India</i> policy and <i>Class I Local Supplier</i> classification primarily apply to OEMs. For service-based firms, the <i>Make in India</i> provisions do not directly align with the nature of service delivery. We therefore request to delete this clause.</p>	<p>The clause is retained as per the published RFE. These clauses are part of the standard Instructions to Bidders (ITB) and General Conditions of Contract (GCC) issued as part of the Model Bid Document for procurement of services, as prescribed by the Ministry of Finance. They are retained to maintain conformity with national bidding standards. Any bid-specific deviations or customizations required for geospatial service delivery have been appropriately addressed in the corresponding clauses of the Additional Instructions to Bidders (AITB) and Special Conditions of Contract (SCC).</p>
31.	<p>Page No:45 Section II: Instructions to Bidders (ITB)</p> <p>6.4 Payments</p> <p>6.4.1 General</p> <p>6.4.2 No Advance Payments</p>	<p>Unless otherwise stipulated, the usual payment term is 100% on delivery and acceptance of Services at 'the Site' by the Procuring Entity and production of all required documents.</p> <p>Unless otherwise stipulated, no advance payment of any type (Mobilization, secured advances etc.), shall be made by the Procuring Entity. If so, provided the conditions for such advances shall be as per conditions stipulated therefore.</p>	<p>Considering the high cost associated with survey operations, it is essential that a mobilization advance of 30% be provided to support initial project execution. ABG against the same may be taken and the amount amortized over the next few milestones. Once amortized, the ABG should be returned.</p> <p>Since, MSEs and Start-ups are also being empaneled the recommendation becomes all</p>	<p>The clause is retained as per the published RFE. This is Technical empanelment only.</p>

			the more essential.	
31.	<p>Page No:59 Section II: Instructions to Bidders (ITB)</p> <p>12.4.6 Consideration of Abnormally Low Bids</p>	<p>An Abnormally Low bid is one in which the bid price, in combination with other elements of the bid, appears so low that it raises substantive concerns as to the Bidder's capability to perform the contract at the offered price. Procuring Entity shall in such cases seek written clarifications from the Bidder, including detailed price analyses of its bid price concerning scope, schedule, allocation of risks and responsibilities, and any other requirements of the Tender Document. If, after evaluating the price analyses, procuring entity determines that Bidder has substantively failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity shall reject the bid/ proposal, and evaluation shall proceed with the next ranked bidder.</p>	<p>The department should establish a realistic estimate of the project value prior to tendering. In case where bids are received at abnormally low rates, no clarifications should be sought from the bidder concerned. The bidder who has bid at an abnormally low cost has made this conscious choice only to grab the project. There fore, he will surely justify the low bid rate which will ultimately result into failure of the project. Unusually low bids in project NAKSHA are a validation to this fact. Therefore, it is recommended that any abnormally bid below 15/20% of estimated price should be summarily rejected.</p> <p>In case, summary rejection of a bid is not acceptable, it is suggested that any bid varying more than a predetermined percentage (say 15%) from the average bid price, should be rejected OR at least, if the bid is varying by more than such 15% on the lower side of average, an additional BG of 15% must be asked from such a bidder. This will avoid any non-serious bidders from under quoting and then not performing. Govt of Uttarakhand and Govt of Rajasthan have such arrangements already available.</p>	<p>The clause is retained as per the published RFE. This is Technical empanelment only.</p>

32.	<p>Page No:76 Section IV: General Conditions of Empanelment (GCE)</p> <p>5.2 Obligation to Maintain Eligibility and Qualifications</p>	<p>The contract has been awarded to the contractor based on specific eligibility and qualification criteria. The contractor is contractually bound to maintain such eligibility and qualifications during the execution of the contract. Any change which would vitiate the basis on which the contract was awarded to the contractor should be pro-actively brought to the notice of the Procuring Entity within 7 days of it coming to the Contractor's knowledge.</p>	<p>In the absence of clear projections regarding the quantity of work and allocation timelines, it is impractical to commit to maintaining the highest number of equipment and resources. The significant up front capital expenditure and associated challenges, as outlined above, further compound this issue. In light of these serious concerns, we request reconsideration of this clause to ensure a more practical and sustainable approach.</p>	<p>The clause is retained as per the published RFE. Empanelment requires firms to demonstrate credible access to equipment and manpower suited to their class and service category, but does not mandate continuous deployment or idle maintenance of maximum resources. Firms are expected to scale and mobilize resources as per project requirements within specified timelines. This approach ensures readiness without imposing impractical capital burdens, while safeguarding execution timelines and data quality for technically demanding projects.</p>
33.	<p>Page No:87 Section IV: General Conditions of Empanelment (GCE)</p> <p>5.13 Book Examination Clause</p>	<p>3) If on such examination, it is established that the contracted price is more than the actual cost-plus reasonable margin of profit, the Procuring Entity shall have the right to reduce the price and determine the amount to a reasonable level.</p> <p>The contractor or its agency is bound to allow examination of its books within 60 days from the date the notice is received by the contractor or its agencies calling for the production of documents under sub-clause (1) above. In the event of the contractor's or his agency's failure to do so, the contract price would be reduced and determined according to the best judgment of the Procuring Entity, which would be final and binding on the contractor and his agencies.</p>	<p>It is understood that the actual award of work is made to the L1 bidder. Checking into the books of bidders to find out their profit margins is akin to looking into their confidential business models. Bid issuers after satisfying themselves to L1 prices and negotiations thereafter have no business to look into the confidential financial books/ documents of bidders. This will also lead to subjectivity and harassment/ exploitation of the bidders at all stages of the execution of a contract at the hands of any contract manager who may be unethical.</p> <p>Based on prior experience with similar projects, particularly those executed by the Survey of India (SOI), it has been observed that L1 bidders often operate at minimal margins. If the contract manager, on scrutinizing the books, finds that a bidder has lower margins than what the contract manager expected, would it not be prudent that the bidder is now compensated. Furthermore, as mentioned in the earlier query regarding "Abnormally Low Bids" it</p>	<p>The clause is retained as per the published RFE.</p> <p>The department does not mandate routine scrutiny of bidders' financial books or profit margins. Checks related to abnormally low bids are triggered only in exceptional cases to confirm the viability of quoted rates, as per GFR and CVC guidelines. This ensures quality and timely execution, not interference in business models. Clarifications, if sought, are limited to written justifications without penalizing low margins. Internal cost estimates are prepared prior to tendering to promote fair and sustainable competition.</p>

			<p>is essential that the department establish a realistic and well-researched project cost estimate prior to tendering to ensure fair competition and sustainable execution.</p>	
34.	<p>Page No:91 Section IV: General Conditions of Empanelment (GCE) 8.Measurement, Variations and Modifications</p>	<p>8.1 Quantities in Contract The admeasurement of Inputs and Services</p>	<p>These clauses seem more relevant to a “works” contract. It is requested to delete such irrelevant “works” related clauses.</p>	<p>The clause is retained as per the published RFE. These clauses are part of the standard Instructions to Bidders (ITB) and General Conditions of Contract (GCC) issued as part of the Model Bid Document for procurement of services, as prescribed by the Ministry of Finance. They are retained to maintain conformity with national bidding standards. Any bid-specific deviations or customizations required for geospatial service delivery have been appropriately addressed in the corresponding clauses of the Additional Instructions to Bidders (AITB) and Special Conditions of Contract (SCC)..</p>
35.	<p>Page No:91-92 Section IV: General Conditions of Empanelment (GCE) 8.3.1 Powers of Variations</p>	<p>Unless otherwise stipulated, the accepted variation in the quantity of each contract item would be up to 25% of the quantity initially contracted. The contractor shall be bound to carry out the service at the agreed rates and shall not be entitled to any claim or compensation whatsoever up to the limit of 25% variation in the quantity of the individual item of services.</p>	<p>This clause is disadvantageous and will lead to some padding up of the bids. It is best to pay the awardee for the area that has been accepted finally at the unit rate accepted in the contract. This is also an accepted practice in all the Govt. tenders. Also, not making payments to vendors for legitimate extra work is against the principle of nature justice. This clause will also lead to subjectivity at the level of contract manager.</p>	<p>The clause is retained as per the published RFE. Payments will be made at the contracted unit rate for the final accepted area, in line with standard Government of India practices. Legitimate extra work, if formally approved, will be compensated through variation orders or supplementary work orders. The clause ensures fairness, prevents overpayment, and includes safeguards to avoid subjectivity through defined QA/QC protocols and acceptance criteria.</p>

36.	<p>Page No.- 99 Section IV: General Conditions of Empanelment (GCE)</p> <p>10.4.2 Extension for Delay Not Due to Contractor</p>	<p>If in the opinion of the contractor, the progress of Services has any time been delayed due to following reasons, then within 15 days of such happening causing delay, he shall give notice thereof in writing to the Contract Manager but shall nevertheless do due diligence to bring down or make good the delays and to proceed with the services.</p>	<p>For the deployment of survey teams, obtaining flight permissions is a critical prerequisite. It is therefore recommended that the deployment time lines be defined as follows: a minimum of 15 days for operations in Green Zones, 30 days for Yellow Zones, and 60 days or more for Red Zones, considering the additional time typically required for clearances. Furthermore, in certain Red Zone areas—particularly those near international borders or designated VIP/restricted zones—obtaining flight permissions may not be feasible due to security and regulatory constraints. In such cases, it is requested that either:</p> <p>(a) these areas be excluded from the scope of the survey, or the responsibility for securing permissions be assigned solely to the contract Manager.</p>	<p>The clause is retained as per the published RFE. Deployment timelines will be aligned with regulatory realities. While vendors are responsible for obtaining flight permissions, the department will facilitate the process. Areas with confirmed non-clearance will be addressed transparently through formal scope adjustments.</p>
37.	<p>Page No.- 100 -101 Section IV: General Conditions of Empanelment (GCE)</p> <p>10.4.3 Extension of Time for Delay Due to Contractor</p>	<p>10.5.2 Damages for Shortfall in Performance- The Procuring Entity shall, without prejudice to other rights and remedies under the contract, recover as damages for the shortfall in performance, but not as a penalty, 0.5% percent (or any other Survey of India Department of Science & Technology percentage prescribed) of the delivered price (including elements of GST & freight) of the defective Services, If the contractor fails to perform the Services as per Performance Standards and Quality, without having to prove actual loss incurred.</p> <p>10.5.3 Liquidated damages- Subject to GCE-clause 10.4, if the contractor fails to perform the Services within the time frame(s) incorporated in the contract, the Procuring Entity shall, without prejudice to other rights and remedies available to the Procuring Entity under the contract, deduct from the contract price, as liquidated damages for each week of delay or part thereof until actual delivery or performance, but not as a penalty, a sum equivalent to the 0.125% percent of the contract value for</p>	<p>While all sorts of damages have been explained and implemented on the bidders, the bid manager must also specify how much interest are going to pay the contractor if the payment is delayed beyond a reasonable period (say 45 days). Furthermore, as per prevailing tax regulations, GST liability becomes due from the vendor to the Government immediately upon invoice submission, regardless of whether the corresponding payment has been received or not. In light of this, it is requested that at least the GST component of the invoice amount be released immediately upon acceptance of the invoice.</p> <p>To safeguard vendors from financial burden due to delayed GST payments, it is further proposed that any delay in releasing the GST portion should attract a penal interest of 12% per annum, to be borne by the contract manager's office.</p> <p>We kindly request that this clause be</p>	<p>The clause is retained as per the published RFE. This RFE is for technical empanelment only, and no financial disbursement or payment-related provisions, including GST reimbursements or penal interest for delayed payments, are applicable at this stage. Such financial terms will be detailed in the project-specific financial bidding documents issued to empaneled firms as per applicable government norms.</p>

		each week of delay.	amended accordingly to ensure timely compliance and fair financial treatment of vendors.	
38.	Page- 105 Section IV: General Conditions of Empanelment (GCE) 11.4 Withholding and lien in respect of sums claimed:	It is an agreed term of the contract that the sum(s) of money so withheld or retained under the lien referred above shall be kept withheld or retained till the claim arising out of or under the contract is determined under clause GCE 12 and/ or 13	The Performance Security amounting to 3% of the contract value has already been submitted in accordance with the prescribed guidelines. In this context, we seek clarification on the rationale for any additional retention of funds beyond the submitted Performance Security. Kindly delete this clause.	The clause is retained as per the published RFE. This RFE pertains only to technical empanelment, and no financial commitments—such as Performance Security, retention money, or disbursement terms—are applicable at this stage. All such financial provisions, including any requirement for Performance Security or retention, will be defined separately in the project-specific financial bidding documents to be issued to empaneled firms.
39.	Page 106-107 Section IV: General Conditions of Empanelment (GCE) 11.5.4 Advance Payments	i) Mobilization advances up to 5% (five percent) of the initial contract price. Equipment Advance up to 90 % (ninety percent) of the cost of the new equipment brought to the site,	We request confirmation on whether, in cases where the contractor plans to procure new equipment (such as drones, sensors, DGPS, etc.), the contract manager's office will provide a 90% advance of the new equipment cost. Additionally, we kindly request clarification on the payment mechanism and the modalities associated with such disbursements, including the documentation required, approval process, and timeline for release of the advance amount.	The clause is retained as per the published RFE. This RFE is for technical empanelment only, and no financial commitments, advances, or disbursement mechanisms—including equipment cost advances—are covered under this stage. All financial terms, including provisions (if any) for mobilization or equipment advances, will be defined separately in the project-specific financial bidding documents issued to empaneled firms.
40.	Page No. 132-133 Section VI: Schedule of Requirements&VI-1: Services and Activities Schedule Category 6: 2D Feature Extraction Services	Manual and Semi-Automated Digitization Methods: Semi-Automated Digitization: Use of feature extraction algorithms for enhanced efficiency.	Could you please elaborate on the methods used for semi-automated digitization? What is the required resolution of the imagery for accurate feature extraction?	Semi-automated digitization refers to the use of specialized software tools (e.g., AI-assisted or rule-based GIS platforms) that facilitate feature extraction through algorithms, followed by manual validation and correction. Specific resolution requirements will be defined in project-specific financial bidding documents based on the nature of features to be extracted.

41.	<p>Page No. 134-135</p> <p>Section VI: Schedule of Requirements&VI-1: Services and Activities Schedule</p> <p>Category 7: 3D Feature Extraction and Vector Model Services</p>	<p>Collection and integration of source data from:</p> <ul style="list-style-type: none"> ▪ Stereo Imagery (Aerial or Satellite). 	<p>Please confirm do the images are required from Satellite as well along with Drone and Manned aircraft. The new advance hybrid sensors system integrates multiple high-end imaging and sensing technologies in a single platform, including:</p> <ul style="list-style-type: none"> - High-resolution nadir RGB camera - Four oblique RGB cameras (forward, backward, left, right) - LiDAR sensor - Optional NIR (near-infrared) sensor <p>1. LiDAR Provides Accurate 3D Geometry Without Stereo LiDAR directly captures 3D point clouds by measuring distances using laser pulses. It does not rely on feature matching, unlike stereo image pairs. Highly accurate elevation models (DEM/DSM) are generated from LiDAR data even in:</p> <ul style="list-style-type: none"> - Vegetated areas - Shadowed regions - Featureless surfaces (e.g., roads, water bodies) <p>This makes LiDAR more robust and accurate than traditional stereo-derived models, especially in urban environments.</p> <p>2. Oblique Imagery Enhances 3D Feature Extraction The four oblique cameras on these sensors provide multi-angle coverage of vertical structures like buildings, facades, and towers.</p>	<p>The use of advanced hybrid sensors integrating LiDAR and multi-angle oblique imagery is recognized and encouraged under this RFE. These systems can deliver high-accuracy 3D models and true orthophotos without the need for traditional stereo processing. Therefore, for service categories where LiDAR and oblique imagery are captured using such integrated platforms, stereo processing of nadir images is not mandatory, provided that the deliverables meet the specified accuracy, resolution, and feature extraction requirements. However, satellite imagery is not required under this RFE unless explicitly mentioned in a future project-specific bid. No change is proposed to the overall scope, but stereo processing will not be insisted upon where equivalent or superior outcomes are achieved using integrated LiDAR + oblique systems.</p>
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This allows creation of detailed textured 3D city models without needing stereo overlap in nadir images.

Oblique images provide complementary views that resolve occlusions common in nadir stereo pairs.

3. These advance hybrid sensors are Designed for Integrated 3D Mapping

The system is specifically designed for urban 3D mapping. latest advance software can directly fuse:

- LiDAR data
- Oblique imagery
- Nadir imagery

This provides superior outputs like 3D meshes, true orthophotos, and building footprints—without needing traditional stereo processing.

4. Elimination of Stereo Processing Reduces Costs and Complexity

Traditional stereo processing requires:

- High forward overlap
- Manual tie point editing
- Long processing time

With LiDAR + oblique imagery:

- 3D accuracy is improved
- Manual intervention is reduced

			<ul style="list-style-type: none"> - Faster turnaround time <p>Since these advance hybrid sensors captures:</p> <ul style="list-style-type: none"> - Direct 3D data via LiDAR - High-resolution multi-angle oblique images <p>There is no additional benefit in doing stereo processing of the nadir images. The combination of LiDAR + oblique imagery exceeds the geometric and visual detail achievable by traditional stereo photogrammetry alone.</p> <p>Therefore we request you to remove stereo processing as it is not required when LiDAR and oblique imagery from these advance hybrid sensors are being captured.</p>	
42.	Page No. 135 Section VI: Schedule of Requirements & VI-1: Services and Activities Schedule 3D Feature Extraction	Agisoft Metashape, Bentley ContextCapture, Leica Cyclone or equivalent software with similar capabilities.	Kindly include DAT/EM and Rhino TerrainSoft wares for stereo compilation 3D Feature Extraction and Vector Modeling.	Firms may propose equivalent software tools, provided their capabilities match the functional specifications listed in the RFE. All such tools will be subject to verification.
43.	Page No. 136-137 Section VI: Schedule of Requirements & VI-1: Services and Activities Schedule DSM to DTM Conversion Services	Terrasolid, Global Mapper, ArcGIS or equivalent software with similar capabilities.	Kindly include DT Master software for DSM to DTM conversion from Stereo pairs.	Firms may propose equivalent software tools, provided their capabilities match the functional specifications listed in the RFE. All such tools will be subject to verification.
44.	Page No.- 150 Section VI: Schedule of Requirements & VI-	Cloud storage solutions must comply with: Data Encryption Standards (e.g., AES- 256).	It is expected that cloud storage will be on Meity Cloud where service providers have no means to apply any of the encryption standards separately. Meity would have	The clause is retained as per the published RFE. The RFE specifies that all data must be stored and transferred securely in compliance with applicable government standards. If

	1: Services and Activities Schedule Permanent Data Storage (Post-Processing):	secured such cloud inherently. Therefore this clause should be deleted.	MeitY-approved cloud infrastructure is used, which inherently adheres to required security protocols, no separate encryption measures from the service provider are expected. The clause does not mandate redundant encryption where government-secured infrastructure is in use. However, data protection responsibility remains with the service provider until successful handover.	
45.	Page No.- 152 Section VI: Schedule of Requirements & VI-1: Services and Activities Schedule Empanelment Process and Technical Qualification Requirements	Firms meeting the criteria for one or more categories are empanelled under the applicable Class (C/B/A/A+), for a period of 3 years. Empanelment shall be subject to payment of the one-time Registration Fee of ₹25,000 by all technically qualified firms.	Kindly confirm that for each empanel category have to paid fee ₹25,000 by all technically qualified firms or only ₹25,000 need to pay by empanel firm.	Only one-time empanelment fee of ₹25,000 (plus applicable taxes) is payable per firm , irrespective of the number of service categories applied for or qualified in. This fee is applicable only after technical qualification and is to be paid at the time of final empanelment confirmation. No separate fee is required for each service category.
46.	Page No.- 155 Section VII: Performance Standards and Quality Assurance 1.1. General Performance Criteria	Minimum Performance Standard Horizontal Accuracy: ≤10cmRMSE (Root Mean Square Error) for all mapping products Minimum Point Density: ≥ 10 points/m ² for terrains surveys involving LiDAR data acquisition Feature Accuracy: ≤15 cm RMSE for extracted 2D features, ≤20cmRMSE for 3D features.	In view of the project requirements and varying topographical conditions, it is requested that performance standard criteria be defined and mandated in alignment with the specific geographical and operational challenges of each project.	The clause is retained as per the published RFE. As this RFE is for technical empanelment only, general performance standards are defined to assess firms' capabilities across service categories. Project-specific performance criteria—considering geographical, topographical, and operational challenges—will be detailed in the respective project-based financial bidding documents issued to empaneled firms.
47.	Page No:155 Section VII: Performance	LiDAR Point Cloud Density: Minimum Point Density: ≥ 10 points/m ² for terrain surveys involving LiDAR data acquisition.	Under Category 4 (Manned Aerial Services for ORI and Terrain Survey using LiDAR) and Category 5 (Manned Aerial Services for	The ≥10 points/m ² requirement specified in the RFE represents the minimum capability threshold for technical empanelment under

	<p>Standards and Quality Assurance</p> <p>Performance Standards and Quality Assurance, 1.1. General Performance Criteria</p>		<p>3D City Model and Terrain Survey using LiDAR), the document specifies: “Minimum Point Density: ≥ 10 points/m² for terrain surveys involving LiDAR data acquisition.” We seek clarification on the following:</p> <ul style="list-style-type: none"> • Will the ≥ 10 points/m² requirement apply uniformly across all future projects under this empanelment? • Or will there be variability in point density requirements (e.g., < 10 pts/m²) based on project scope, terrain type, or application? <p>Please clarify.</p>	<p>Categories 4 and 5. Actual point density requirements for future projects may vary depending on project scope, terrain, and application needs. Project-specific financial bidding documents will define the exact LiDAR specifications, including point density, based on end-use objectives and geographic context.</p>
48.	<p>Page No.-174</p> <p>Schedule VII-3: Critical Material Schedule</p> <p>Class- Based Minimum Critical Equipment Requirements, Item Sr No-1- Aerial Platform (Manned/ Unmanned)</p>	<p>UAVs or Aircraft capable of carrying required sensors for 2D/3D mapping</p> <p>Class- C- 3 UAV</p> <p>Class-B-5 UAV</p> <p>Class-A-12UAV</p> <p>Class-A+-20UAVOR</p> <p>1Aircraft/ Helicopter</p>	<p>We respectfully submit this representation requesting a revision in the UAV class-wise deployment requirements as specified in the tender:</p> <ul style="list-style-type: none"> • Class-C:3UAVs • Class-B:5UAVs • Class-A:12UAVs • Class-A+: 20 UAVs or 1 Aircraft/Helicopter <p>While we understand and appreciate the intent to ensure operational capacity and quality in aerial data capture, we would like to draw your attention to the disproportionate capital burden this imposes on MSME bidders.</p> <p>The current specifications equate UAV deployment to the scale and operational capacity of aircraft or helicopter platforms—whereas MSMEs typically deploy advanced multirotor or fixed-wing UAVs that are fully capable of meeting the technical deliverables such as < 10 cm GSD, oblique imaging, and 3D photogrammetric mapping.</p> <p>We request that the UAV class requirements be revised and made</p>	<p>The clause is retained as per the published RFE. the class-wise UAV quantity requirements are defined to ensure readiness for simultaneous deployments and timely delivery of large-scale projects. The current thresholds are based on operational scalability rather than individual platform capability. While the technical performance of advanced UAVs is recognized, no amendment is proposed at this stage. However, deployment flexibility and actual resource mobilization will be reviewed during project-specific bidding, based on scope, timelines, and performance history of empaneled firms.</p>

			<p>proportionate to the project scope, especially in relation to:</p> <ul style="list-style-type: none"> Actual deliverables, which are based on data quality and coverage efficiency—not merely on the number of UAVs. The principle of inclusive procurement, in line with Government of India's MSME promotion policies, to encourage wider participation and fair competition. The proven capability of high-performance drones (equipped with RTK/PPK and suitable sensors) to deliver the expected outputs even with fewer platforms through efficient flight planning and redundancy. <p>A more balanced and technically-aligned classification would enable MSMEs with demonstrated experience in high-resolution drone mapping to participate effectively without undue financial strain. We sincerely request the department to revisit and revise the UAV requirements in the interest of inclusivity, value for public funds, and fair competition. For the same Suggesting No. of UAV required as per different classes.</p> <ul style="list-style-type: none"> Class-C-1UAV Class-B-2UAV Class-A-5UAV <p>Class-A+-7UAVORor1Aircraft/Helicopter.</p>	
49.	Page No-174 Schedule VII-3: Critical Material Schedule Class- Based	Nadir Camera (\leq 5 cm GSD) – Oblique Camera(4Oblique+1 Nadir) - LiDAR Sensor (DSM/DTM/3D Models) • Category-C- At least 3 Nadir / at least 2 Oblique (if bidding for 3DMapping)/	We respectfully request a revision in the UAV requirement criteria mentioned in the tender document. As per the current	The clause is retained as per the published RFE. The UAV sensor and equipment requirements have been defined to ensure technical capability and data quality equivalent

	Minimum Equipment Requirements, Item Sr No-2- Imaging Sensors	Critical	<p>Atleast2LiDAR Sensors(If bidding for LiDAR Services)</p> <ul style="list-style-type: none"> Category-B-At least 5 Nadir / at least 3 Oblique(if bidding for 3DMapping) / At least3 LiDAR Sensors(If bidding for LiDAR Services) Category-A-At least 12 Nadir / at least 5 Oblique(if bidding for 3DMapping) / At least5 LiDAR Sensors (If bidding for LiDAR Services) Category-A+- At least 20 Nadir / at least 8 Oblique (if bidding for 3D Mapping using Drones) / At least8 LiDAR Sensors(If bidding for LiDAR Services using drones) or2eachtypeofsensorsif platform used is Air Craft/ Helicopter 	<p>specifications, the UAV sensors and equipment expectations are significantly high and appear proportionate to aerial platforms like aircrafts or helicopters, which imposes a substantial capital investment burden on MSME bidders. This may inadvertently limit fair participation and restrict competition among otherwise technically competent and qualified small enterprises.</p>	<p>to manned aerial platforms, especially for high-resolution and 3D mapping deliverables. However, it is not mandatory to match the scale of aircraft-based setups. Technically competent MSMEs using advanced UAVs with appropriate sensors (e.g., RTK/PPK, oblique, or LiDAR) may meet the criteria proportionate to their class.</p>	
50.	Page No.-174 Schedule VII-3: Critical Material Schedule	Class-Based Minimum Equipment Requirements, Item Sr No-5- Processing Software for LiDAR	Based Critical	<p>Processing Software For LiDAR DSM To DTM Conversion Software Terra solid, Global Mapper, ArcGIS& LiDAR Terrain Survey & DTM Generation- Terra solid, Leica Cyclone, Global Mapper, Cloud Compare</p>	<p>We kindly request the inclusion and acceptance of reliable open-source software platforms such as Open Topography, Cloud Compare, GRASS GIS, QGIS with relevant plugins, and other equivalent tools for data processing, terrain analysis, and geospatial deliverables. These platforms are widely adopted across the geospatial industry, offer robust capabilities, and are compliant with standard data formats such as Geo TIFF, LAS/LAZ, and shapefiles. Allowing the use of such tools will promote cost- effective, transparent, and flexible project execution, while ensuring that deliverables adhere to the required quality and accuracy standards. This approach is also in alignment with Government of India's push towards open technology and self-reliance (Atmanirbhar Bharat).</p>	<p>Open-source tools like QGIS may be used if they meet all functional requirements of the service category. Responsibility for quality and accuracy rests with the bidder.</p>

51.	PageNo.174 Schedule VII-3: Critical Material Schedule	Proof of Access: Ownership is not mandatory. Live lease agreements (minimum 12 months) or MoUs with equipment providers will also be accepted.	Were quest to consider the LOI from the OEM for the proposed Equipment for the bidding purpose mentioning that the bidder will own/Lease the equipment after the award of contract.	The clause is retained as per the published RFE. To ensure readiness and avoid execution delays, the RFE requires bidders to demonstrate confirmed ownership or a valid lease agreement for critical equipment at the time of submission. A mere Letter of Intent (LOI) from the OEM does not establish guaranteed availability or commitment. Therefore, LOIs will not be accepted in place of ownership or lease documents.
52.	PageNo.176-184 Section VII: Qualification Criteria	Qualification Matrix for various categories (e.g., Category 1: Drone Services for ORI & DSM requires Class C: 2 projects \geq ₹25L each OR 3 projects \geq ₹50L)	For aggregating project values (e.g., multiple projects within a 12-month window), can projects from different clients be combined?	The clause is retained as per the published RFE. No, aggregation of project values is permitted only for multiple projects executed for the same client within a 12-month period, and only if they pertain to the same or similar nature/scope of work relevant to the applied service category. Each aggregated project must be supported by separate work orders and completion/progress certificates to establish technical relevance and continuity.
53.	Page No.- 176-177 Section VIII: Qualification Criteria 1. Experience and Past Performance Mesh modeling and DSM	DroneServicesfor3DCityModel “Experience in aerial photogrammetry and land parcel mapping”	Is specific experience in land parcel mapping projects a mandatory requirement, or would experience in related scopes of work that include land parcel mapping as part of a broader range of services also be considered acceptable? Furthermore, there have been very few projects exclusively focused on land parcel mapping in India over the past five years. Therefore, we kindly request that the experience period be extended to the last ten years to allow for broader participation.	The clause is retained as per the published RFE. Specific experience in land parcel mapping is preferred; however, experience in related projects where land parcel mapping formed a component of the scope will also be considered acceptable.

54.	Page No.- 177 Section VII: Qualification Criteria 1.Experienceand Past Performance;	1. Experience and Past Performance Bidders must demonstrate successful or substantially completed (≥80% payment received) execution of similar geospatial service contracts within the last Three (3) years , corresponding to the service categories they are applying for. Work experience not related to geospatial services will not be considered.	<p>We respectfully request you to kindly consider extending the experience criteria from the last three (3) years to the last seven (7) years. This will allow bidders to showcase a more comprehensive track record, reflecting their long-term capabilities in executing similar geospatial projects.</p> <p>Furthermore, the COVID-19 pandemic significantly impacted project execution and new contract awards during the past few years. Expanding the experience window to seven years would help ensure that competent and experienced bidders with proven domain expertise are not inadvertently excluded due to this extraordinary global disruption.</p> <p>We believe this adjustment will enhance the competitiveness and quality of participation in the tender process.</p>	The clause is retained as per the published RFE. The experience criteria have been kept as the last three (3) years to ensure that firms possess recent and relevant experience using the latest geospatial technologies and tools. Given the rapid technological advancements in UAVs, sensors, and data processing platforms, older projects may not accurately reflect a firm's current technical readiness.
55.	Page No.- 177 Section VII: Qualification Criteria 1.Experienceand Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:	CategoryNo-1 Drone Services for Ortho Rectified Imagery (ORI) and Digital Surface Model (DSM) ClassC:2projects≥₹25LeachOR1 project ≥ ₹50L Class B: 3 projects ≥ ₹50L each OR 1 project ≥ ₹150L ClassA:4projects≥₹100LeachOR 1 project ≥ ₹400L Class A+: 5 projects ≥ ₹200L eachOR1project≥₹1000L	<p>We respectfully request that the tendering authority kindly provide exemptions for MSME-registered bidders, in line with the prevailing Government of India guidelines for promotion of Micro and Small Enterprises. As per the Public Procurement Policy for MSMEs, we request that a 50% exemption in each eligibility and technical category be granted to MSME bidders. This will not only encourage broader participation but also align the tender process with the national mandate of promoting indigenous and small-scale enterprises.</p> <p>We seek your kind consideration to ensure fair competition and inclusive procurement.</p>	No Change

56.	<p>Page No.- 177</p> <p>Section VII: Qualification Criteria</p> <p>1.Experience and Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:</p>	<p>Category No-2</p> <p>Drone Services for 3D City Model</p> <p>Experience in aerial photogrammetry and land parcel Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L</p>	<p>Request you to change the definition of Similar Work-Experience in Drone / aerial photogrammetry for Topography Survey mapping.</p> <p>We respectfully request that the tendering authority kindly provide exemptions for MSME-registered bidders, in line with the prevailing Government of India guidelines for promotion of Micro and Small Enterprises. As per the Public Procurement Policy for MSMEs, we request that a 50% exemption in each eligibility and technical category be granted to MSME bidders. This will not</p>	No Change
57.	<p>Page No.- 177</p> <p>Section VII: Qualification Criteria</p> <p>1.Experience and Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:</p>	<p>Category-3</p> <p>Drone Services for ORI and Terrain Survey using LiDAR.</p> <p>Experience in aerial photogrammetry and LiDAR-based terrain mapping</p> <p>Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L</p> <p>Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L</p>	<p>Only encourage broader participation but also align the tender process with the national mandate of promoting indigenous and small-scale enterprises. We seek your kind consideration to ensure fair competition and inclusive procurement. We respectfully request that the tendering authority kindly provide exemptions for MSME-registered bidders, in line with the prevailing Government of India guidelines for promotion of Micro and Small Enterprises. As per the Public Procurement Policy for MSMEs, we request that a 50% exemption in each eligibility and technical category be granted to MSME bidders. This will not only encourage broader participation but also align the tender process with the national mandate of promoting indigenous and small-scale enterprises. We seek your kind consideration to ensure fair competition and inclusive procurement.</p>	No Change

58.	<p>Page No.- 177</p> <p>Section VII: Qualification Criteria</p> <p>1.Experience and Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:</p>	<p>Category-6</p> <p>2D Feature Extraction Services</p> <p>Class C: 2 projects \geq ₹25L OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L</p> <p>Class A: 4 projects \geq ₹100L OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L</p>	<p>We respectfully request that the tendering authority kindly provide exemptions for MSME-registered bidders, in line with the prevailing Government of India guidelines for promotion of Micro and Small Enterprises. As per the Public Procurement Policy for MSMEs, we request that a 50% exemption in each eligibility and technical category be granted to MSME bidders. This will not only encourage broader participation but also align the tender process with the national mandate of promoting indigenous and small-scale enterprises. We seek your kind consideration to ensure fair competition and inclusive procurement.</p>	No Change
59.	<p>Page No.- 177</p> <p>Section VII: Qualification Criteria</p> <p>1.Experience and Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:</p>	<p>Category-7</p> <p>3D Feature Extraction and Vector Model Services</p> <p>Class C: 2 projects \geq ₹25L OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L</p> <p>Class A: 4 projects \geq ₹100L OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L</p>	<p>We respectfully request that the tendering authority kindly provide exemptions for MSME-registered bidders, in line with the prevailing Government of India guidelines for promotion of Micro and Small Enterprises. As per the Public Procurement Policy for MSMEs, we request that a 50% exemption in each eligibility and technical category be granted to MSME bidders. This will not only encourage broader participation but also align the tender process with the national mandate of promoting indigenous and small-scale enterprises. We seek your kind consideration to ensure fair competition and inclusive procurement.</p>	No Change

60.	<p>Page No.- 177</p> <p>Section VII: Qualification Criteria</p> <p>1.Experienceand Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:</p>	<p>Category-8</p> <p>DSM to DTM Conversion Services</p> <p>ClassC:2projects≥₹25LeachOR1 project ≥ ₹50L Class B: 3 projects ≥ ₹50L each OR 1 project ≥ ₹150L</p> <p>ClassA:4projects≥₹100LeachOR 1 project ≥ ₹400L Class A+: 5 projects ≥ ₹200L each OR 1project ≥₹1000L</p>	<p>We respectfully request that the tendering authority kindly provide exemptions for MSME-registered bidders, in line with the prevailing Government of India guidelines for promotion of Micro and Small Enterprises. As per the Public Procurement Policy for MSMEs, we request that a 50% exemption in each eligibility and technical category be granted to MSME bidders. This will not only encourage broader participation but also align the tender process with the national mandate of promoting indigenous and small-scale enterprises. We seek your kind consideration to ensure fair competition and inclusive procurement.</p>	No Change
61.	<p>Page No.- 177</p> <p>Section VII: Qualification Criteria</p> <p>1.Experienceand Past Performance; i.e. Category-Wise Experience Matrix with Class-Based Thresholds:</p>	<p>Category-9 Geo-Positioning Services- Horizontal Control</p> <p>Category-10 Geo-Positioning Services -Vertical Control</p> <p>Category-11 Georeferencing Services</p>	<p>We would like to submit that Category-9 (Geo-Positioning Services – Horizontal Control), Category-10 (Geo-Positioning Services–Vertical Control), and Category-11 (Georeferencing Services) should not be treated as standalone projects for evaluation purposes.</p> <p>These services represent fundamental technical components that are inherently included as part of broader geospatial survey and mapping assignments, such as aerial photogrammetry, LiDAR surveys, and other integrated GIS projects. Most GIS companies routinely perform these functions as part of their comprehensive service delivery.</p> <p>Therefore, individual work orders solely citing these categories, without being part of a complete surveyor mapping scope, should not be considered independently for technical qualification. This ensures a more realistic assessment of bidder capability and aligns evaluation with the actual end-to-</p>	No Change

			end projects operate rather than isolated, routine activities.	
62.	Page No. 177 Section VII: Qualification Criteria 1. Experience and Past Performance	2. Drone Services for 3D City Model	Sir, as of now, no one has undertaken this type of work in India. Therefore, we kindly request you to consider the ongoing Naksha project as meeting the eligibility criteria, provided that at least 30% of the project has been completed.	The clause is retained as per the published RFE. The purpose of the eligibility criteria is to ensure readiness and prior execution capability in similar scope projects. While it is acknowledged that some services are relatively new in India, the requirement of at least 80% project completion is retained to ensure maturity of delivery. Ongoing projects like Naksha may be submitted for reference, but unless 80% of the scope is completed and documented, they will not qualify toward eligibility.
63.	Page No. 176-179 Section VII: Qualification Criteria :6. 2D Feature Extraction Services: GIS- based 2D mapping and digitization experience: Extraction of 2D vector data from ortho rectified imagery: GIS-based 2D mapping and digitization experience	Minimum Work Experience Requirement (By Class): Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L	Request to exempt this under Class –C for start-ups and/or MSEs, as per Govt. of India guidelines as we can demonstrate the capability and expertise to execute the work.	The clause is retained as per the published RFE. This is a dynamic RFE, and firms fulfilling the eligibility criteria—including start-ups and MSEs under Class-C—may apply anytime during the empanelment period. While exemptions are not granted at the time of technical evaluation, eligible start-ups and MSEs demonstrating the required capabilities, infrastructure, and past work (as per relaxed thresholds in Class-C) are encouraged to apply and will be assessed fairly.
64.	Page No. 179 Section VIII: Qualification Criteria 1. Experience and Past Performance,	Bidders must demonstrate successful or substantially completed (\geq 80% payment received) execution of similar geospatial service contracts within the last five (5) years, corresponding to the service categories they are applying for.	We would like to request for the consideration in past experience for Indian Startup and MSME based on the Govt. of India rules to encourage the Indian Startup for active participation in the Govt. initiative pogroms. Below are the GOS: As per the, Ministry of Micro, Small &	The RFE already incorporates relaxed eligibility criteria under Class-C to encourage participation from Indian Startups and MSMEs. Prior experience and turnover requirements for Class-C are designed to be achievable for such entities. Additionally, successful

Medium Enterprises (MSMEs) vide Policy Circular No. 1(2)(1)/2016-MA dated 10th March, 2016 has clarified that all Central Ministries / Departments / Central Public Sector Undertakings (CPSUs) may relax condition of prior turnover and prior experience with respect of Micro & Small Enterprises (MSEs) in all public procurements subject to meeting of quality and technical specifications.

• In recent time Survey of India (SOI) has taken a proactive step to evaluate the technical capabilities of Startups and MSMEs by initiating a Proof of Concept(PoC)/Pilot project for “NAKSHA”. This initiative is aimed at showcasing their proficiency in UAV/Drone-based image acquisition, processing and mapping (2D and 3D) utilizing Nadir, oblique and LiDAR Sensors for the Dept. of Urban Land Record.

In this process, the data generated and submitted by the agencies reviewed by Survey of India (SOI) to verify compliance with the desired output specifications and accuracy, and it served as the basis for the subsequent financial evaluation of firm. And believe that it is one of the best criteria to evaluate the startup and encourage the new talent in the market by SOI being a National Mapping Organization.

Due to allowing of Indian Startup and MSME by your Organization, we were selected to implement the project NAKSHA at Tamil Nadu and Kerela.

As a recognized Startup, we request to consider the Indian Startups and MSME.

participation in pilot initiatives like NAKSHA may be considered supportive evidence of technical capability, provided documentation is furnished. Therefore, no further amendment is required, and eligible Startups/MSMEs are encouraged to apply under Class-C.

65.	Page No. 176-179 Section VIII: Qualification Criteria	<p>Important Instructions:</p> <ul style="list-style-type: none"> - Work executed for Central / State Government, PSUs, or listed private companies shall be considered. 	<p>We request you to consider the experience from reputed private organizations too and change the clause as:</p> <p style="text-align: center;">Work executed for Central / State Government, PSUs, or listed private companies or reputed private companies shall be considered.</p>	<p>The clause will remain as per the RFE. The existing clause permits consideration of experience from Central/State Government and PSUs to ensure traceability, standard compliance, and verifiability. However, in recognition of the evolving private geospatial sector, experience from listed private companies may also be considered, provided the bidder submits verifiable documentation such as work orders, completion certificates, and data quality reports.</p>
66.	Page No:176-180 Section VII: Qualification Criteria	<p>1.Experience and Past Performance</p> <p>Bidders must demonstrate successful or substantially completed ($\geq 80\%$ payment received) execution of similar geospatial service contracts within the last five (5) years, corresponding to the service categories they are applying for. Work experience not related to geospatial services (e.g., civil works, IT) will not be considered.</p>	<p>Experience and Past Performance criteria specified for Drone services category as well as Manned aircrafts services category is same.</p> <p>However, the project value and quantity of drone survey services are not at par in most of the cases. Hence, we kindly request you to reduce the no. of past performance projects and their respective values for categories 1,2 & 3.</p> <p>Kindly consider and confirm.</p>	<p>The clause is retained as per the published RFE. While it is acknowledged that project sizes and investment scales differ between drone-based and manned aerial services, the experience and performance criteria have been kept consistent to ensure uniform technical capability and operational maturity across categories. This also ensures readiness to execute large-scale government assignments.</p>
67.	Page No. 177-180 Section VIII: Qualification Criteria	<p>Experience for Class B: 3 projects $\geq ₹50L$ each OR 1 project $\geq ₹150L$</p>	<p>We kindly request you to consider international work experience for all the specified services during the evaluation process, in order to allow wider participation and leverage global expertise.</p> <p>It is kindly requested to waive the prior work experience requirement for bidders registered under MSME/NSIC, in accordance with the prevailing Government of India procurement policies promoting MSMEs.</p>	<p>The clause is retained as per the published RFE. International experience may be considered for evaluation provided the scope, scale, and technical specifications of the projects are comparable to the services defined in the RFE, and are supported with verifiable documentation. However, the requirement for prior relevant work experience has been retained for all classes to ensure demonstrated capability. MSME/NSIC-registered firms may participate under Class-C, which already incorporates relaxed thresholds,</p>

				but no blanket waiver of experience is proposed in order to maintain quality and execution readiness.						
68.	Page No. 176-180 Section VIII: Qualification Criteria Experience and Past Performance	Projects must have been completed or $\geq 80\%$ completed within the last 5 years from the date of bid submission.	We request to consider projects which are under implementation/ on-going with proper LOA, WO and Contract Agreement. As the majority of Drone/ LiDAR and 3D Mapping Projects are recently awarded, hence there under implementation phase.	The clause is retained as per the published RFE. Ongoing projects may be considered for past experience evaluation, provided the bidder has executed at least 80% of the project scope and submits valid supporting documents such as LOA/WO, contract agreement, and a client-issued progress/completion certificate indicating the extent of work completed. This ensures recent project experience is recognized while maintaining evaluation integrity.						
69.	PageNo.176-180 Section VIII: Qualification Criteria	<p>3. Technical Evaluation Framework Required Forms for Technical Evaluation -Category-wise Sample Data Package: ORI, DSM, LAS, DTM, SHP files, etc.</p> <table border="1"> <thead> <tr> <th>Category No.</th> <th>Service Category</th> <th>Minimum Data Sample/Document Requirements</th> </tr> </thead> <tbody> <tr> <td>11</td> <td>Georeferencing</td> <td>Legacy map(pre), Referenced raster/post-map, GCP Report</td> </tr> </tbody> </table>	Category No.	Service Category	Minimum Data Sample/Document Requirements	11	Georeferencing	Legacy map(pre), Referenced raster/post-map, GCP Report	It is not cleared that how old should be categorized in legacy data or you will provide legacy data. Kindly clarify.	Legacy data refers to previously generated geospatial datasets available with SOI or other government agencies that may be provided for reference or integration in specific projects. The age or version of such data will be defined in the respective project-specific bidding documents, depending on its relevance and applicability. This RFE does not require bidders to possess or supply legacy data at the empanelment stage.
Category No.	Service Category	Minimum Data Sample/Document Requirements								
11	Georeferencing	Legacy map(pre), Referenced raster/post-map, GCP Report								
70.	Page No.177 Section VIII: Qualification Criteria 1. Experience and Past performance: Important Instructions:	Projects must have been completed or $\geq 80\%$ completed within the last 3 years from the date of bid submission.	We request the Authority to extend the eligibility period for completed projects from the last 3 years to the last 10 years. Many past projects beyond the last 3 year window remain highly relevant and demonstrate valuable expertise, making this extension beneficial for broader participation. Expanding the timeframe	No change.						

			would enhance competition, encourage experienced bidders, and align with industry best practices. Kindly consider.	
71.	Page No. 178 Section VII: Qualification Criteria 3. Drone Services for ORI and Terrain Survey using LiDAR	3. Drone Services for ORI and Terrain Survey using LiDAR Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L	We kindly request you to revise the eligibility clause to accept either one project with a value of ₹25 lakhs or three projects each with a minimum value of ₹5 lakhs, executed within the last five years.	No change.
72.	Page No. 180 Section VIII: Qualification Criteria: 11. Georeferencing Services: Georeferencing of legacy raster or vector maps to WGS-84 datum: Experience in datum transformation and image control point alignment	Class C: 2 projects \geq ₹25L each OR 1 project \geq ₹50L Class B: 3 projects \geq ₹50L each OR 1 project \geq ₹150L Class A: 4 projects \geq ₹100L each OR 1 project \geq ₹400L Class A+: 5 projects \geq ₹200L each OR 1 project \geq ₹1000L	Request to exempt this under Class-C for start-ups and/or MSEs as per Govt. of India guidelines as we can demonstrate the capability and expertise to execute the work	The clause is retained as per the published RFE. This is a dynamic RFE, and firms fulfilling the eligibility criteria—including start-ups and MSEs under Class-C—may apply anytime during the empanelment period. While exemptions are not granted at the time of technical evaluation, eligible start-ups and MSEs demonstrating the required capabilities, infrastructure, and past work (as per relaxed thresholds in Class-C) are encouraged to apply and will be assessed fairly.
73.	Page No. 183 Section VIII: Qualification Criteria 4. Financial Capability	Only revenue from geospatial services will be considered. Firms must submit a Chartered Accountant certificate with segmented turnover declaration.	1. Please consider the turnover of Financial year 2024-25 in calculating 3 years average annual turnover 2. Kindly consider the Statutory CA certified balance sheets for the financial year 2024-2025	Yes, firms may include the turnover of the financial year 2024–2025 in calculating the average annual turnover for the last three years, provided that the audited balance sheet or a CA-certified provisional statement for FY 2024–25 is submitted. Statutory CA-certified documents will be accepted if audit completion is pending. The evaluation committee will consider the most recent available financials, subject to authenticity and completeness.

74.	Page No.176-180 Section VIII: Qualification Criteria	5. Regulatory and Statutory Compliance: Mandatory certifications include: <ul style="list-style-type: none">• ISO9001:2015(Quality Management)• ISO27001:2013 (Information Security) CMMILevel3 (for Geospatial Services)	All three ISO certifications are mandatory; it is requested if you kindly ask any of above certification for a healthy competition.	The clause is retained as per the published RFE. The requirement for multiple ISO certifications ensures adherence to quality, information security, and service management standards across all categories.
75.	Page No.184 Section VII: Qualification Criteria 5.Regulatory and Statutory Compliance	CMMILevel3 (for Geospatial Services)	We kindly request to remove the requirement of CMMILevel3, as there is no application development as part of the scope of services.	The requirement of CMMI Level 3 certification has been made to ensure that firms follow standardized quality management and process maturity practices in handling large-scale geospatial data processing, workflow integration, and service delivery. While there is no software development involved, the complexity and volume of data processing under this RFE justify the need for proven quality assurance frameworks. No change.
76.	Page No.184 Section VII: Qualification Criteria 5.Regulatory and Statutory Compliance	Bidders must be registered legal entities in India with valid PAN, GST, and ESI registration. Mandatory certifications include: <ul style="list-style-type: none">• ISO 9001:2015 (Quality Management)• ISO 27001:2013 (Information Security)• CMMI Level 3 (for Geospatial Services)	We request that CMMI Level 3 certification be exempted or made optional for Startups and MSMEs, especially for those registered under Startup India. As a young enterprise focused on innovation, we possess ISO certifications and proven technical competence but obtaining CMMI Level 3 is resource-intensive. Relaxing this clause will help encourage new entrants in the national geospatial value chain, aligned with Atmanirbhar Bharat and Digital India goals.	No change. The request is acknowledged. As per the RFE, CMMI Level 3 is a preferred—not mandatory—requirement , especially for higher classes (A and A+). For Startups and MSMEs applying under Class C or B , the absence of CMMI Level 3 will not disqualify them. The evaluation will focus on technical competence, ISO certifications, and past performance.
77.	Page No. 185 Section VIII-1: Key Personnel Schedule Note for Bidders	5. Regulatory and Statutory Compliance: Bidders must be registered legal entities in India with valid PAN, GST, and ESI registration. Mandatory certifications include: <ul style="list-style-type: none">• ISO 9001: 2015 (Quality Management)• ISO 27001: 2013 (Information Security)• CMMIlevel3(for Geospatial Services)	Please update this to reflect ISO 27001:2022. The ISO 27001:2013 version will become invalid after 31st October 2025 and should no longer be referenced in proposals, as doing so will be technically incorrect.	The clause is retained as per the published RFE. Firms holding a valid ISO 27001 certification—whether under the 2013 or updated 2022 version—will be considered compliant under this RFE.

78.	<p>Page No. 188 Section VIII-1: Key Personnel Schedule</p> <p>6. 2D Feature Extraction Services</p> <p>7. 3D Feature Extraction and Vector Model Services</p>	<p>2D Feature Extraction Services</p> <p>Experience in LiDAR/stereo photogrammetry-based 3D feature extraction</p>	<p>We kindly request you to consider work experience comprising three work orders, each covering an area of at least 80 sq. km, towards fulfilling the eligibility criteria. Currently, even if feature extraction is allocated over 1,000 sq. km, due to the low pricing per sq. km, it is extremely difficult to produce three work orders worth ₹50 lakhs each or a single work order worth ₹1.5 crores.</p> <p>Request you to consider the International work experience</p>	No change.
79.	<p>Page No. 185-190 Section VIII-1: Key Personnel Schedule.</p>	<p>This Section outlines the minimum key personnel required for each service category under different bidder classes (Class C, B, A, A+).</p> <p>Personnel deployment must be demonstrated through Form 3.3 and matched with equipment and resource availability.</p> <p>All personnel qualifications, experience and availability must be verifiable through submitted documents.</p> <p>The table below provides category wise and class wise minimum personnel requirements for empanelment.</p>	<p>For GIS Operators and Survey Engineers, it is recommended that the required experience be reduced to a minimum of 1 year instead of the current 3 years. Typically, field and ground operations teams have around one year of experience when deployed on-site for field work execution.</p> <p>Therefore it is requested that this suggestion be considered.</p> <p>Additionally, to support the qualifications of key personnel, we are submitting their CVs in the specified format. Please confirm whether this will adequately address the RFE requirements.</p>	No change.
80.	<p>Page- 190- 191 Section VIII-2: Critical Equipment Schedule</p> <p>1. Category and Class-Based Critical Equipment</p>	<p>1. Drone Services for ORI & DSM [Type-certified UAVs with ≤5cm GSD] - C=3/B=5/A=12/A+=20</p> <p>2. Drone Services for 3DCity</p>	<p>In case, a firm is applying for more than one category, the quantity of resources (platform, sensors, human resources, software, hardware etc) would have to be shown separately for each category. Herein, it is recommended that the platform, human</p>	<p>The clause is retained as per the published RFE. This RFE is for technical empanelment only and does not guarantee work order volumes or values. While firms applying for multiple categories must demonstrate capacity for each, common use of platforms, human</p>

	Schedule	<p>[Oblique array (4oblique+1nadir)] C=2 / B=3 / A=5 / A+=8</p> <p>.</p> <p>.</p> <p>.</p> <p>And soon...</p>	<p>resources, software and hardware should be allowed to be common as much as possible. Only sensors could be considered separately for each category.</p> <p>In addition, in case a firm is empaneled for category 2, in class A, the investment required will be approx. Rs. 2.3 cr. Similarly for category 3 in class A, the investment required will be approx. Rs. 6.25 cr. Without any visibility of work orders/ Value over the three empanelment years, it is highly impossible to make such investments.</p> <p>Requirement of submitting only assurance letter for lease from OEMs has already resulted into non- execution in project Naksha. The lessons form that demand removal of such lease letter clauses. It is recommended that quantity of platforms and sensors required as ownerships be appropriately reworked to suit investment vs assured order value.</p>	<p>resources, software, and hardware is permitted where technically feasible. Sensors, being category-specific, must be demonstrated separately. The requirement for ownership or lease assurance is to establish readiness, but learnings from past projects will be considered, and these provisions may be suitably re-examined during project-specific bidding based on investment versus work assurance dynamics.</p>
81.	<p>Page No.- 191</p> <p>Section VIII-2: Critical Equipment Schedule</p> <p>1.Category and Class-Based Critical Equipment Schedule</p> <p>PointNo7,8,9,10</p>	<p>LiDAR Data Processing Software- Owned / Licensed</p> <p>Photogrammetry Software- Owned / Licensed</p> <p>Feature Extraction Software—Owned/ Licensed</p> <p>GIS Software—Owned/Licensed</p>	<p>The terms 'Owned' and 'Licensed' currently convey the same meaning. It is recommended to redefine.</p>	<p>The clause is retained as per the published RFE. The terms 'Owned' and 'Licensed' will be redefined to remove ambiguity. 'Owned' shall refer to assets procured and directly held by the bidder, while 'Licensed' shall refer to legally valid usage rights acquired through OEMs or authorized distributors.</p>
82.	<p>Page No.- 191</p> <p>Section VIII-2: Critical Equipment Schedule</p> <p>1.Category and Class-Based Critical Equipment Schedule</p> <p>PointNo12</p>	Data Transfer Tools	Kindly clarify about the data transfer tool.	'Data Transfer Tool' refers to a secure and efficient mechanism—software-based or hardware-assisted—for transferring large volumes of geospatial data (e.g., imagery, LiDAR, vector datasets) from field teams to processing units or cloud storage. It may

				include encrypted data transfer utilities, portable data storage with security protocols, or automated synchronization tools compliant with GoI data security norms. The tool must support timely, secure, and traceable movement of project data
83.	Page No. 191 Section VIII-2: Critical Equipment Schedule 9: 2D/3D Feature Extraction	Feature Extraction Software	As QGIS is open source tool freely downloadable software. We request to change the requirement of proof of purchase. 2. Kindly include DAT/EM and Rhino Terrain Softwares for stereo compilation 3D Feature Extraction.	Firms may propose equivalent software tools, provided their capabilities match the functional specifications listed in the RFE. All such tools will be subject to verification.
84.	Page No:128 & Page No:190 &191 Clause: Data Storage &Transfer & Clause: Section VIII-2: Critical Equipment Schedule. 1.Category and Class-Based Critical Equipment Schedule	Data Storage & Transfer - Cloud-based repositories/NAS Boxes for secure storage and delivery. & 11.All Applicable- Storage & Backup-NAS/ Cloud storage (scalable).	We assume SOI will provide cloud subscription details to all the selected firms. Please confirm.	Yes, for projects requiring centralized data storage and processing, SOI will provide access credentials and configuration details for the designated MeitY-empaneled cloud infrastructure. Empaneled firms will be required to upload and manage data on the assigned cloud platform as per project-specific instructions. Cloud subscription and provisioning will be handled by SOI or the concerned implementing agency.
85.	Page No.192 Section VIII-2: Critical Equipment Schedule Monthly Coverage Estimate (per UAV)	Nadir Camera only– 200 sq. km/month	Typically, a drone covers approximately 5 sq. km per day. This results in a total of 120 sq. km over a 24-day period, (assuming 6 contingency days are set aside for potential weather issues, permission delays, or other field-related challenges). Given that this coverage target is already quite challenging, we kindly request that this criterion be relaxed, taking into consideration the actual endurance and coverage capabilities of the drones being used and available in market.	The clause is retained as per the published RFE. The current daily coverage benchmark is based on market-available fixed-wing survey-grade drones, which have demonstrated capacities of 8–10 sq. km per day under standard conditions. However, the criterion accounts for realistic downtime, and firms using lower-endurance platforms may propose proportionate deployment scaling (e.g., multiple drones) to meet targets. The criterion is thus performance-based, not platform-

				specific, allowing flexibility while ensuring timely execution.
86.	Page No. 192 Section VIII-3: Financial Qualification Matrix Sr. No. 1, Financial Parameter: Minimum Average Annual Turnover (Past 3 Years)	Sr.No.1,FinancialParameter:Minimum Average Annual Turnover (Past 3 Years) Class C: Rs. 2.5 cr	Request to exempt this under Class-C for start-ups and/ or MSEs as per Govt. of India guidelines Or Request you to relax this condition to Minimum Average Annual Turnover (Past 2 Years) for Class C: Rs. 2.5 cr for Startups and/ or MSEs	The clause is retained as per the published RFE. This is a dynamic RFE, and firms fulfilling the eligibility criteria—including start-ups and MSEs under Class-C—may apply anytime during the empanelment period. While exemptions are not granted at the time of technical evaluation, eligible start-ups and MSEs demonstrating the required capabilities, infrastructure, and past work (as per relaxed thresholds in Class-C) are encouraged to apply and will be assessed fairly.
87.	Page No:192-193 Section VIII-3: Financial Qualification Matrix	Note: Bidders must submit a turnover segmentation certified by a Chartered Accountant showing total vs. geospatial-only turnover for the past three financial years.	As our audit for the current financial year is in progress, we request you to consider the Balance sheets and Chartered Accountant (CA) certificates until the financial year 2023 - 2024. Kindly consider and confirm.	Yes, audited financial statements and CA-certified documents up to the financial year 2023–2024 will be accepted for evaluation, provided they meet the RFE's specified requirements. Firms whose FY 2024–25 audit is pending may submit the latest available audited documents along with a declaration.
88.	Page No. 174 Note for Bidders: PageNo.190 1.CategoryandClass-Based Critical Equipment Schedule	<ul style="list-style-type: none"> Firms must furnish valid ownership documents or live lease agreements for all listed equipment and software. <p>And</p> <p>Proof of ownership or long-term lease (≥ 12 months) is mandatory for all core equipment categories.</p>	<p>Kindly clarify regarding Live lease agreement for the critical equipment.</p> <p>Also kindly clarify that the lease agreement can be entered into with the OEM/Equipment owner before the date of bid submission and should be kept valid for a period of more than 12 months. Kindly clarify.</p>	<p>A valid lease agreement for critical equipment must be executed with the OEM or authorized equipment owner prior to the bid submission date and should remain valid for a minimum period of 12 months from the date of submission. The agreement must clearly indicate the availability and commitment of the equipment for the bidder's use in the applied service category. This ensures operational readiness and authenticity of declared resources.</p>

89.	Page No.-185-190; SectionVIII-1: Key Personnel Schedule	ServiceCategory-For1To11. Require Personal Roles- Project Manager, UAV Pilots, GIS Specialist Bachelor's in GIS + 3 yrs exp.; DGCA Certified+1yrexperience	Bachelor's of any graduate for eg.- GIS/Geology/Geography or any Engineering Field etc. with relevant Experience + 3 yrs exp. Domain expert;	No change.
90.	Page No. 190 1. Category and Class-Based Critical Equipment Schedule	Proof of ownership or long-term lease (≥ 12 months) is mandatory for all core equipment categories.	We kindly request you to accept Letters of Intent (LoI) from OEMs of equipment and software, or from their authorized distributors, as valid supporting documents	The clause is retained as per the published RFE. To ensure operational readiness and avoid execution delays, only valid ownership or executed lease agreements will be accepted as proof of equipment/software availability. Letters of Intent (LoIs) from OEMs or their authorized distributors will not be accepted as they do not guarantee committed access. This requirement is necessary to ensure the bidder's declared resources are contractually secured.
91.	Page No.190-191 Section VIII-2: Critical Equipment Schedule	Equipment ownership (e.g., UAVs must be Owned/Leased ≥ 12 months)	For leased equipment, is a lease agreement valid if it is renewable annually, or must it be a fixed-term lease covering the full 3-year empanelment period?	The clause is retained as per the published RFE. A lease agreement for critical equipment must be valid at the time of bid submission and for a minimum initial period of 12 months . It may be renewable annually, provided the lease terms include clear provisions for renewal and continued availability throughout the project execution. However, firms will be required to ensure uninterrupted access to the leased equipment for the entire duration of project execution , as and when awarded, even if it extends beyond the initial lease term.
92.	Page No.-192-193; Section VIII-3: Financial Qualification Matrix	Minimum Average Annual Turnover (Past 3 Years) Class C: ₹2.5 Cr to ₹5 Cr - Class B: >₹5 Cr to ₹10 Cr - Class A: >₹10 Cr to ₹50 Cr - Class A+: >₹50	We request that the minimum average annual turnover for Startups be relaxed to ₹1 Crore, considering the nature of technology-driven services that often rely more on innovation and equipment capabilities than revenue scale. This is in line with Government of India's startup friendly procurement policies (Ministry of	No change.

			Finance OM No. F.20/2/2014-PPD dated 25.07.2016). Such relaxations will foster inclusive participation and allow competent but smaller firms to contribute to national geospatial infrastructure also consider the submission of work orders also.	
93.	Page No.192-193 Section VIII-3: Financial Matrix	Minimum Average Annual Turnover (e.g., Class A+: ₹50 Cr over 3 years, ≥50% from Geospatial Services)	Please clarify if the turnover from geospatial- related IT/ITES services (e.g., software development for GIS tools) can be included in the ≥50% geospatial revenue criterion.	Yes, turnover from geospatial-related IT/ITES services—such as GIS software development, geospatial data processing platforms, and spatial analytics—can be included in the ≥50% geospatial revenue criterion, provided the services are clearly linked to geospatial applications and are supported by verifiable documentation, including project descriptions and client references.
94.	Page No. 192-193 Section VIII-3: Financial Qualification Matrix	Estimated Project Handling Capacity (Per Annum)	On page 202, it is mentioned that the estimated project Handling Capacity is indicative and used for future financial bidding scale validation. So, kindly confirm whether the above capacity is to be showed during the technical submission of EOI. And if it is to be showed then what type of documents is to be submitted in support of the same.	The estimated project handling capacity mentioned on page 202 is indicative and intended for future validation during project-specific financial bidding.
95.	Page No. 192-193 Section VIII-3: Financial Qualification Matrix	Joint Venture Eligibility – Cross-Domain Teams Only turnover from geospatial services shall be considered. Revenue from unrelated domains (e.g., civil construction, IT, facility services) will not be accepted.	We request clarification and a flexible policy allowing joint ventures between firms from diverse but relevant domains (e.g., one from detailed project reporting and another from drone/geospatial mapping). This approach promotes a collaborative ecosystem and enables micro-enterprises and domain specialists to team up and meet the overall qualification criteria jointly.	No change.
96.	Page No. 176-183 Criteria 4 - Financial Capability, Form 4.3	Estimated Project Capacity (Per Annum): <ul style="list-style-type: none">• Class C:₹2.5Cr• Class B:₹5.0Cr		The clause is retained as per the published RFE here is no contradiction between the two statements. Page 233 (Form 4.3: Qualification

	Qualification Criteria – Compliance	<ul style="list-style-type: none"> Class A:₹10.0Cr Class A+:₹20.0Cr or above <p>Standard Minimum Liquidity Required (15% of above):</p> <ul style="list-style-type: none"> Class C:₹0.38Cr Class B:₹0.75Cr Class A:₹1.50Cr <p>Class A+:₹3.00Cr or more</p>		Criteria – Compliance) states the minimum financial threshold required for each class, which is consistent with the Financial Qualification Matrix in Section VIII-3. The class-wise ranges defined elsewhere in the RFE are for classification purposes only and do not override the stated minimum eligibility requirement. The document is consistent in its application.																		
97.	Page No. 193 Section VIII-3: Financial Qualification Matrix	<table border="1"> <thead> <tr> <th>Sr. No</th> <th>Financial Parameter</th> <th>Class C</th> <th>Class B</th> <th>Class A</th> <th>Class A+</th> </tr> </thead> <tbody> <tr> <td>6</td><td>Minimum Financial Liquidity (Cash / Bank / WC)</td><td>₹0.5 Cr</td><td>₹1.0 Cr</td><td>₹2.0 Cr</td><td>₹5.0 Cr</td></tr> <tr> <td>7</td><td>Estimated Project Handling Capacity (per annum)</td><td>₹1 Cr</td><td>₹3 Cr</td><td>₹6 Cr</td><td>₹30 Cr</td></tr> </tbody> </table>	Sr. No	Financial Parameter	Class C	Class B	Class A	Class A+	6	Minimum Financial Liquidity (Cash / Bank / WC)	₹0.5 Cr	₹1.0 Cr	₹2.0 Cr	₹5.0 Cr	7	Estimated Project Handling Capacity (per annum)	₹1 Cr	₹3 Cr	₹6 Cr	₹30 Cr	Both the statements are contradictory, as the value asked is different in both the statements. Kindly clarify.	The clause is retained as per the published RFE. The two statements are not contradictory. Section VIII-3 mentions the minimum annual average turnover required for each class, while the class structure elsewhere in the RFE defines class intervals for reference and classification purposes. The use of minimum value in the Financial Qualification Matrix is consistent with the intent of assessing eligibility.
Sr. No	Financial Parameter	Class C	Class B	Class A	Class A+																	
6	Minimum Financial Liquidity (Cash / Bank / WC)	₹0.5 Cr	₹1.0 Cr	₹2.0 Cr	₹5.0 Cr																	
7	Estimated Project Handling Capacity (per annum)	₹1 Cr	₹3 Cr	₹6 Cr	₹30 Cr																	
98.	Page No. 213 Instructions to Bidders	Bidders must provide a detailed methodology outlining their approach to executing the services under the RFE.	Please confirm Bidder must have to be submitted work plan & Method statement for all applying services.	Yes, submission of an indicative Work Plan and Method Statement is required at the technical empanelment stage for each applied service category. While project-specific details are not available, bidders are expected to outline a generic but category-relevant approach demonstrating technical understanding, workflow readiness, QA/QC processes, and resource planning. This supports evaluation of the firm's																		

				preparedness without requiring project-specific execution plans.
99	Page No. 217 Work Plan	The Method Statement must be supplemented by information in the Work Plan, Personnel Deployment Plan, Equipment Deployment Plan	For EOI submission, how can the work plan and deployment plan be suggested without having the information on AOI and time period	At the technical empanelment stage, the work plan and deployment plan are required only as indicative submissions to demonstrate the bidder's understanding of geospatial workflows, resource planning, and operational readiness. Since the specific Area of Interest (AOI) and timeline are not defined at this stage, firms may provide a generic plan based on past experience and category-wise capability. Detailed project-specific work plans will be required only at the financial bidding stage, once AOI and timelines are known.
100.	Page No. 190-191, 224-225 1. Category and Class-Based Critical Equipment Schedule	Category and Class-Based Critical Equipment	The list of critical equipment required for each category and class, as mentioned on pages 190–191, differs from the details given on pages 224–225. We request you to kindly clarify on this.	The clause is retained as per the published RFE. The list of critical equipment on pages 190–191 (Section VIII-1) defines the category-and class-wise minimum equipment requirements , while pages 224–225 (Forms Section) provide the format for declaring availability of such equipment . There is no inconsistency; the forms are designed to capture compliance against the equipment list provided earlier
101.	Page No. 227-228 Form 3.5: Critical Materials Deployment Plan	Critical Materials Deployment Schedule.	Several Items- such as GNSS Base Stations, Cloud Storage & Backup Devices, GIS Software Licenses and Image/LiDAR Processing Software have already been requested under the equipment deployment schedule (Page 224-225) and are repeated in the material deployment schedule. Therefore, we kindly request that these duplicate or similar items which have already been addressed in other sections of the RFP, not be included again.	Items such as GNSS base stations, cloud storage, GIS software, and image/LiDAR processing tools are intentionally reflected in both the critical equipment schedule and the material deployment schedule to ensure cross-verification of availability and readiness. While this may appear repetitive, it is designed to validate both declared resources and their deployment intent.

102.	Page No. 227-228 Form 3.5: Critical Materials Deployment Plan	Critical Materials Deployment Schedule.	Regarding the Critical Materials Deployment Schedule, please confirm whether the listed materials are to be deployed during the execution of the work and whether the bidder is required to submit acceptance of FORM 3.5 only in place of the specified requirement at the time of bid submission.	Yes, the materials listed in the Critical Materials Deployment Schedule are required to be deployed during actual project execution, not at the time of technical empanelment. At the bid submission stage, bidders are only required to submit a duly signed and filled Form 3.5 (Critical Material Deployment Schedule Declaration) confirming their commitment to deploy the specified materials as and when required. No physical deployment or demonstration is needed during the empanelment stage.
103.	Page No. 261 Annexure –C: Materials Deployment Commitment, and Page No.228 Form 3.5: Critical Materials Deployment Plan,	1. Ground Control Targets & Markers- 10/10/12/15 per Sq. Km. 3. Survey-Grade LiDAR Reflectors- 3/5/8/10 per Sq. Km 5. Secure Data Transmission Devices-1/1/2/2 per project.	The materials have been requested on a per square kilometer and per project basis. We kindly ask the authority to clarify the exact quantity of materials that should be provided during the bid submission stage. As the actual area is not yet known, it is challenging to present the materials based on a per square kilometer or per project basis as per the current request. Therefore, we would appreciate clarification on this.	At the technical empanelment stage, bidders are not required to submit material quantities on a per square kilometer or per project basis. Instead, they must declare the availability of critical materials and infrastructure proportionate to their applied class and category using the prescribed forms. Exact quantities based on project area will be defined and validated during project-specific financial bidding, once the scope and geography are known.
104.	Page No. 232-234 Criteria 4 – Regulatory and Statutory Compliance	11. Mandatory Certifications: Bidder must possess valid ISO certifications: • ISO 9001:2015(Quality Management) • ISO27001:2013 (Information Security Management) *Note: CMMI Level 3 or above is preferred for Class A& A+.*	Kindly amend the clause as: Mandatory Certifications: Bidder must possess valid ISO certifications: • ISO 9001:2015 (Quality Management) • ISO27001:2013 (Information Security Management) *Note: CMMI Level 3 or above is preferred for Class A & A+.	The RFE already mandates ISO 9001 and ISO 27001 certifications as essential for all classes. CMMI Level 3 is preferred (not mandatory) for Class A and A+ to reflect process maturity in large-scale operations. In cases where the CMMI certificate is under renewal, a valid letter of confirmation from an authorized CMMI appraisal partner, along with the expired certificate, will be accepted provisionally. The clause will be interpreted accordingly, and no formal amendment is required.

			<p>*Note: If any document is under renewal process.</p> <p>Kindly provide the renewal letter of Confirmation of Ongoing CMMI Appraisal Process issued by Authorized partner of CMMI institute along with expired CMMI Certificate.</p>	
105.	Page No. 232-234 Criteria 4– Regulatory and Statutory Compliance	Additional Class-Specific Certifications: <ul style="list-style-type: none"> • NSOP (for manned aircraft operators) • UAV Pilot Licenses (DGCA Certified) • BIS Certification (for survey-grade sensors, where applicable) 	<p>Kindly clarify whether these documents are mandatory or optional. Additionally, please confirm if the NSOP of the operator from whom the aircraft is being taken on lease would be acceptable.</p> <p>Also, please confirm whether a BIS certificate is mandatory, as most of the sensors mounted on manned aircraft are manufactured outside India and typically do not come with a BIS certificate.</p>	Documents listed under Criteria 4 – Regulatory and Statutory Compliance are mandatory for the relevant service categories (e.g., NSOP for manned aircraft under Categories 4 and 5). If the aircraft is proposed to be leased, the NSOP of the leasing operator will be accepted, subject to valid lease documentation and authorization. Regarding BIS certification, it is clarified that BIS is not mandatory for imported aerial sensors and equipment that do not fall under BIS-compulsory certification categories. Firms must ensure compliance with applicable DGCA, WPC, and MeitY regulations.
106.	Page No.230-235 Form 4: Qualification Criteria - Compliance	"Regulatory and Statutory Compliance: ISO 9001/14001/27001 Certifications"	Are these ISO certifications mandatory for all classes (C to A+), or only for higher classes (A/A+)? If a bidder is in the process of obtaining ISO 9001 (e.g., audit scheduled), can a provisional declaration be accepted?	The clause is retained as per the published RFE. The ISO certifications are applicable across all classes to ensure adherence to quality and information security standards.
107.	Page No. 257-258 Format 1.1.1:Personnel Deployment Plan	QA/QC Specialist B. Tech/Diploma + ISO 9001 certification preferred.	We kindly request the removal of the certification requirement for the QA/QC specialist role, as this type of certification is only held by a limited number of individuals. Therefore we ask for its removal.	The clause is retained as per the published RFE. The certification requirement for the QA/QC specialist role has been included to ensure a standardized approach to data quality management and compliance. However, it is acknowledged that such certifications are limited in availability. Therefore, while certification will be considered an added advantage, it is not mandatory for technical qualification. Relevant experience and

				demonstrated QA/QC expertise in geospatial projects will suffice
108.	Page No. 259 Standard Lease Agreement Format for Equipment		<p>We request you to kindly consider inclusion of the following as acceptable supporting documents for equipment leased by the bidder:</p> <p>a. Lease Agreement and Bill of Entry – in case the equipment is leased from an overseas entity;</p> <p>OR</p> <p>Lease Agreement and proof of lease payment (such as TDS certificate) in favour of the lessor – in case of lease from an Indian entity.</p> <p>b. Lease Agreement in the name of the Bidder or JV Partner, duly certified, with the lease validity covering the entire tenure of the tender.</p>	<p>The request is accepted in principle. For leased equipment, the following supporting documents will be considered acceptable at the time of bid submission:</p> <p>a) A valid Lease Agreement along with a Bill of Entry (for overseas leases), or proof of lease payment such as a TDS certificate (for domestic leases); and</p> <p>b) The lease agreement must be in the name of the bidder or JV partner and must clearly cover the required minimum validity period as specified in the RFE.</p> <p>Documents must be duly certified and verifiable. This ensures both flexibility and compliance.</p>
109.	Service Selection criteria (General Query)	Work Division into Packages – Whether resources should be separate per package	Kindly clarify whether resources such as equipment and personnel are to be deployed and shown separately per service category or state, or if cumulative declaration is acceptable. This will help startups like us plan optimal utilization and reduce duplication of documentation for multiple states/services.	Resources such as equipment and personnel must be declared separately for each service category , as technical requirements vary across categories. However, the declaration is not required to be state-wise , and a single cumulative declaration is acceptable for all States/UTs selected under a given category. Common resources may be shared across categories where technically feasible, but category-wise clarity must be maintained to ensure accurate capacity assessment.

110.	General Query		Average annual turnover is requested to be computed using the turnover data from the last 10 financial years since COVID caused a disruption for three years.	The clause is retained as per the published RFE. No Change.
111.	General Query		Price escalation may be permitted based on changes in the Wholesale Price Index (WPI) for any projects whose duration exceeds 12 months.	This RFE is for technical empanelment only and does not cover any commercial or contractual pricing terms. Provisions related to price escalation, including applicability of WPI-based adjustments, will be addressed in the respective project-specific financial bidding documents, where such escalation may be considered based on project duration and government norms.
112.	General Query	General Query	We would like to request clarification and approval regarding the acceptance of international experience under the following arrangement: We are a group of companies, and our bidding entity HC Robotics Private Limited is part of the same group as Centillion, which holds relevant and successful international experience in topography-related LiDAR and 3D mapping projects. Since, HC Robotics is an Indian geospatial entity for Centillion group, both entities are operated under the same Managing Director and organizational administration, and Centillion is providing 100% operational and technical support to HC Robotics for the successful execution of all Geospatial tenders. We respectfully seek your kind consideration and approval for the following: 1. Acceptance of Centillion's international experience as a qualifying credential in support of HC Robotics' bid. 2. Centillion is already technically qualified for the bid SOI empanelment with the same international experience, tender no: xxxx,	The clause is retained as per the published RFE. As per the RFE, the bidding entity must independently meet the eligibility and experience criteria. Experience of a group company, parent, or affiliate will not be considered unless the bidding entity itself was contractually involved in project execution. Common management or group affiliation is not sufficient to transfer experience for qualification purposes. Therefore, only the projects executed directly by the bidding firm will be evaluated

			<p>unfortunately it was re-floated again. 3. HC Robotics has substantial experience with both AMRUT and SVAMITVA guidelines and possesses adequate resources. Therefore, we kindly request the authority to consider our proposal to support the Survey of India (SOI). To facilitate this, we propose to submit the following documentation: A declaration of group structure signed by the director, confirming the relationship between HC Robotics and Centillion Networks. A certificate of common management under the same Board/Managing Director. 2/3 about: blank 7/17/25, 11:04 AM Fwd: Request for considering our parent company's international experience. A summary of international projects executed by Centillion, with supporting completion certificates and client references. Any additional documents, formats, or affidavits as required by the Tendering Authority to validate the relationship.</p>	
113.	General Query		<p>Is it permissible for a bidder to participate individually in some categories and as part of a joint venture in the remaining categories for this Tender?</p>	<p>Yes, a bidder may participate individually for certain categories and as part of a joint venture (JV)/consortium for other categories, provided that in each case the eligibility criteria are independently met for the respective category and class. Separate applications must be submitted—one under the individual entity and another under the JV—with clearly defined roles, supporting documents, and compliance declarations as per RFE requirements.</p>
114.	General Query		<p>Regarding the Manpower/H/W & S/W mentioned in RFP document will be</p>	<p>Yes, the manpower, hardware, and software requirements specified in the RFE are defined on a per service category and class basis, and are not multiplied by the number of</p>

			constant if any of SP apply for single of multiple state. Please confirm	States/UTs selected. A single set of resources fulfilling the requirements will suffice, regardless of whether the firm applies for one or multiple States/UTs, provided the declared deployment capacity is realistic and scalable as per operational commitments.
115.	General Query		We understand that under JV Prime Bidder +2 Partner allowed. Please confirm.	As per the RFE, a Joint Venture (JV)/Consortium may consist of a Prime Bidder plus one (1) partner only , i.e., a maximum of two entities. The Prime Bidder will be solely responsible for contractual obligations, and both members must collectively fulfill the eligibility criteria for the respective service categories.
116.	General Query		We request you to for eligibility criteria in term of experience of work please count for past 10 years instead of 5 years. As due to COVID 19 almost two year not workflow in entire market.	No change.
117.	General Query		In case of missing of shortfall of any document in BID will SOI ask for clarification/submission of missing	Yes, as per standard procurement practice and to promote fair competition, SOI may seek clarification or request submission of missing or deficient documents during the bid evaluation process, provided such documents

			document instead of rejection of BID. Please clarify.	are not related to core eligibility (e.g. experience). Bids will not be summarily rejected for minor or correctable deficiencies, subject to timely compliance by the bidder.
118.	General Query		In case of work completion of 80% we request you to kindly consider Completion certificate/QC Certificate/Acceptance letter.	No change.
119.	General Query		Is the work experience will be counted for overseas client.	Yes, work experience with overseas clients will be considered, provided the projects are relevant to the applied service category and are supported with verifiable documentation such as work orders, completion certificates, and client references. The scope, scale, and technical specifications must be comparable to the services defined in the RFE.
120.	General Query		Is the JV with foreign company is allowed? Please confirm.	As per ITB Clause 3.1.1 of the RFE, participation in a Joint Venture (JV)/Consortium is permitted only if the JV/Consortium is legally registered in India . Direct participation of foreign firms as JV partners is not allowed unless they are part of an Indian-registered legal entity
121.	General Query		If any of bidder company will be A+ in financial and in work experience will be A in any of one service and in other service, the bidder will be in B class as per work experience. So collectively for under which class the company will be apply for empanel.	Empanelment class is determined independently for each service category based on the bidder's declared and verified financial capacity, relevant work experience, equipment availability, and manpower. Therefore, a bidder may be empaneled under different classes for different service categories . For example, if a firm qualifies for Class A+ financially, but meets only Class A work experience for Service Category X and Class B experience for Service Category Y, it will be empaneled as:

				Class A for Service Category X, and Class B for Service Category Y. Financial strength alone does not determine class; all qualification criteria must be satisfied category-wise.
122.	General Query		Is the for which class company apply for empanel need to be mentioned in Bid document? Please clarify.	Yes, bidders are required to clearly declare the class (C, B, A, or A+) they are applying for under each selected service category in their bid submission. This is essential for the evaluation committee to assess the firm's eligibility based on corresponding thresholds for financials, experience, equipment, and manpower. The declaration must be made in the prescribed forms and supported with class-specific documentation as outlined in the RFE.
123.	General Query		If the company apply for empanel under A class category but during the SOI evolution the eligibility criteria not match under class A in any category so in that case the BID will reject, or SOI will empanel the company in other any different class? Please clarify	If a bidder applies for empanelment under Class A but is found, upon evaluation, to not fully meet the eligibility criteria for that class, SOI will assess whether the bidder qualifies for a lower class (e.g., Class B or C) in the same service category. If so, the firm may be considered for empanelment under the eligible lower class , subject to formal confirmation from the bidder. The bid will not be rejected solely for not meeting the originally declared class, provided the bidder qualifies under any lower class and has submitted complete documentation.
124.	General Query		Any of Firm will in case of Turnover under class A while in work experience and Manpower under class B, so for which class the empanel will got. Please clarify.	For empanelment, the class is determined based on the lowest class level for which the firm meets all four criteria : financial turnover, work experience, equipment, and manpower. Therefore, if a firm meets Class A turnover , but only qualifies for Class B in terms of work experience and manpower, the

				firm will be empaneled under Class B for the respective service category. All criteria must be met at the same class level to qualify for that class.
125.	General Query	Justification & Request for Startup Consideration	<p>We believe that startups and MSMEs play a pivotal role in the future of India's geospatial economy. As technology innovators, we:</p> <ul style="list-style-type: none"> • Deploy advanced tools like UAV LiDAR, Photogrammetry, and bathymetry Surveys • Operate efficiently in remote and rural locations • Bring agility and cost-effectiveness to government projects <p>We humbly request that specific relaxations and encouragement be extended to startups and micro-enterprises, as envisaged under:</p> <ul style="list-style-type: none"> • Startup India Action Plan (GoI, 2016) • Make in India Initiative • GFR 2017 Rule 173(i) on relaxed criteria for Startups • DPIIT's circular on promoting startup procurement <p>By allowing such concessions in turnover and certification, the Survey of India can unlock the participation of numerous capable, innovative Indian startups and foster self-reliance in high resolution geospatial services.</p>	The RFE already incorporates relaxed eligibility thresholds under Class-C to encourage participation from Startups and MSMEs.
126.	General Query	<p>1. Actual Scope of Work (Including Time Frame and Deliverables)</p> <p>Overall Objective:</p> <p>The Survey of India (SoI), under the Department of Science and Technology, seeks to empanel technically qualified firms for geospatial services across India. The empanelment is purely technical at this stage and does not involve financial bidding yet.</p>	<p>1. For aerial and drone surveys, what are the minimum required sensor specifications (e.g., resolution, LiDAR point density, GNSS accuracy) for each category (e.g., ORI, 3D city modeling, terrain mapping)?</p> <p>2. For manned aerial LiDAR surveys, what minimum flying height and swath overlap</p>	Minimum technical specifications, accuracy standards, deliverable formats, and workflow requirements for each service category are detailed in Section VI: Schedule of Requirements of the RFE. This includes drone and aerial survey sensor specifications (e.g., $GSD \leq 5-10 \text{ cm}$, $LiDAR \geq 10 \text{ pts/m}^2$), flight planning parameters, accuracy tolerances (e.g., $DSM/DTM \text{ RMSE} \leq 25 \text{ cm}$), and preferred formats such as Geo TIFF, LAS/LAZ,

	<p>Validity:</p> <ul style="list-style-type: none"> • Empanelment will be valid for 3 years. • Subject to six-monthly performance reviews. • Firms can upgrade/downgrade class based on capacity and performance. <p>Scope of Work (Service Categories):</p> <ol style="list-style-type: none"> 1. Drone Services for Ortho Rectified Imagery (ORI) and DSM <ul style="list-style-type: none"> • Drone flying for ORI and Digital Surface Model creation. 2. Drone Services for 3D City Model <ul style="list-style-type: none"> • Drone flying using oblique cameras to generate photorealistic 3D meshes. 3. Drone Services for ORI and Terrain Survey using LiDAR <ul style="list-style-type: none"> • Drone surveys integrating LiDAR sensors for terrain mapping. 4. Manned Aerial Services for ORI and Terrain Survey using LiDAR <ul style="list-style-type: none"> • Aerial surveys with helicopters or aircraft for large areas, including LiDAR and camera sensors. 5. Manned Aerial Services for 3D City Model and Terrain Survey using LiDAR <ul style="list-style-type: none"> • High-detail 3D city mesh modeling from oblique and nadir imagery plus LiDAR. 6. 2D Feature Extraction Services <ul style="list-style-type: none"> • Digitizing 2D vector data from imagery. 7. 3D Feature Extraction and Vector Model Services <ul style="list-style-type: none"> • Creating 3D vector models from stereo or mesh datasets. 8. DSM to DTM Conversion Services <ul style="list-style-type: none"> • Classifying and processing point clouds into Digital Terrain Models (DTM). 9. Geo-Positioning Services <ul style="list-style-type: none"> • Horizontal Control - GNSS-based 	<p>are prescribed for achieving the required data quality?</p> <ol style="list-style-type: none"> 3. Are there defined tolerances for vertical and horizontal accuracy in deliverables for various LOD levels, particularly for DSM, DTM, and 3D city models? 4. For georeferencing legacy data, does Sol provide Ground Control Points (GCPs), or is the bidder responsible for establishing new GCPs in the project areas? 5. What are the preferred or mandatory deliverable formats for vector data and raster data (e.g., SHP, GDB, DWG, Geo TIFF, LAS, LAZ)? 6. Is there any required integration with specific GIS or BIM platforms for delivering 3D models or extracted features (e.g., ESRI, Bentley, Autodesk)? 	<p>SHP, GDB, City GML, and OBJ. GCPs for georeferencing are to be established by the bidder unless explicitly provided by Sol. Integration with OGC-compliant GIS platforms is expected.</p> <p>Note: Any deviations or enhancements to these specifications, formats, or workflows based on project-specific requirements will be clearly notified at the time of project-based financial bidding.</p>
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	<p>establishment of horizontal control networks.</p> <p>10. Geo-Positioning Services</p> <ul style="list-style-type: none"> • Vertical Control - Precision leveling and establishment of vertical benchmarks. <p>11. Georeferencing Services</p> <ul style="list-style-type: none"> • Aligning legacy records or raster datasets to modern coordinate systems (e.g., WGS-84). <p>Deliverables:</p> <ul style="list-style-type: none"> • Data acquisition (images, point clouds). • Processed outputs (DTMs, DSMs, ORI, 3D meshes). • Vector datasets (2D/3D). • Reports and metadata. • Compliance with performance and quality standards. • Project-specific deliverables as defined in future RFPs. <p>Future projects will define:</p> <ul style="list-style-type: none"> • Area to be covered (sq. km.). • Daily coverage expectations (for UAVs, manned aircraft). • Project duration (months or years). • Specific technical complexity. • Empanelment is only for technical pre-qualification; financial proposals and detailed timelines will be required at the project stage. <p>2. Required Documents: To participate, bidders must submit a set of mandatory documents, including.</p> <ul style="list-style-type: none"> • Form 1 – Bid Form (Covering Letter) • Form 1.1 – Bidder Information • Form 1.2 – Eligibility Declarations • Form 2 – Schedule of Requirements Compliance • Form 3 – Performance Standards and Quality Assurance Compliance • Form 3.1 to 3.5 – Method Statement, Work Plan, Personnel and Equipment Plans • Form 4 – Qualification Criteria Compliance 	
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- Form 4.1 – Performance Statement
- Form 4.2 – Non-Performance/Litigation Statement
- Form 4.3 – Financial Capability Statements
- Form 5 – Terms and Conditions Compliance
- Form 6 – Checklist for Bidders
- Form 7 – Bid Securing Declaration
- Form 8 – Integrity Pact (if applicable)

Other Supporting Documents:

- GST Registration
- PAN, EPF, ESI, Labour registrations (as applicable)
- MSME or Start-up Certificates (if claiming benefits)
- Work orders and completion certificates for past projects
- Financial Statements and turnover certificates
- Joint Venture/Consortium agreements (if applicable)
- Documents proving local content (for “Make in India” compliance)

Physical Submission:

- Primarily an online process.
- Physical documents may be required for verification from successful bidders only.

3. Eligibility Criteria: General Eligibility

Open to:

- Individual service providers.
- Firms.
- Joint Ventures/Consortiums (max. 2 firms).
- Must be Indian registered entities or compliant under “Make in India” policy (minimum 50% local content for Class-I suppliers).

Must not.

- Be insolvent or bankrupt.
- Be blacklisted or debarred by Sol or any Government of India entity.
- Have conflicts of interest.
- Employ individuals prohibited due to government service cooling-off rules.

Class-Based Financial Criteria: Firms are categorized into classes based on annual turnover:

- Class C: INR 2.5 – 5 crore.
- Class B:>INR 5 – 10 crore.
- Class A:>INR 10 – 50 crore.
- Class A+:>INR 50 crore.

Firms must:

- Meet technical and financial qualifications relevant to the class they are applying for.
- Demonstrate: - Relevant experience in similar projects. - Availability of key personnel and equipment. - Financial stability (liquidity, solvency).

Additional Policies

Preferences under:

- Make in India.
- MSME policy.
- Start-up policy.
- Bidders from countries sharing land borders with India require DPIIT registration.

Note:

- No financial bidding at this stage. Financial proposals will be sought separately for each project in future RFPs issued only to empanelled firms.
- Empanelment does not guarantee work allocation.