



दिल्ली विकास प्राधिकरण
(DELHI DEVELOPMENT AUTHORITY)
मास्टर प्लान मॉनिटरिंग और समीक्षा तथा एन.सी.आर.
(Master Plan Monitoring & Review & NCR),
तेरह मंजिल, विकास मीनार, इंद्रप्रस्थ एस्टेट, नई दिल्ली-110002
(13th Floor, Vikas Minar, Indra Prastha Estate, New Delhi-110002)

File No.: F.18(17)/2019-MP/D-30

दिनांक: 24/01/2020

Minutes of the Meeting

विषय: **Minutes of the pre-bid meeting and the First meeting of Bid Evaluation Committee held on 16.12.2019.**

संदर्भ: **Meeting Notice No. F.18(17)/2019/MP/D-527 dated 13.12.2019.**

Meeting Proceedings

Pre-bid meeting and the First meeting of the Bid evaluation committee were held on 16/12/2019 (Monday) at 11:00 am under the chairmanship of Commissioner (Plg.), DDA. List of participants is enclosed as **Annexure-A**. The Pre-bid meeting began by welcoming the delegates from various organizations and members of the bid evaluation committee, followed by a presentation by MPMR & NCR unit. The presentation informed the participants about:

- The queries submitted by respective firms/ organizations in reference to the Terms of Reference Aircraft/UAV (Drone) captured LiDAR /ortho image-based GIS mapping & Land Use Survey Agency for MPD 2041.
- Comments and observations from Legal wing, DDA.
- Comments and observations from Finance wing, DDA.

Representative from IIT Roorkee was also present in the meeting for their observation and comments.

The submitted queries on the ToR floated on DDA website dt. 09/11/2019 and their clarifications discussed in the pre-bid meeting were further put forward before the Bid Evaluation Committee for its consideration. Detailed list of queries along with the Bid Evaluation Committee's decision is enclosed as **Annexure-B**.

The revised RFP will be uploaded on DDA website shortly for inviting proposals, both technical and financial, after receiving further comments and observations, if any, from Legal & Finance wing of DDA.

Sd/-

(अनिमेष कुमार सिंह)

सहायक निदेशक (योजना), एम.पी.एम.आर.

प्रतिलिपि :-

- PS to VC, DDA for information of the latter.
- Commissioner (Plg.) DDA
- Deputy Chief Accounts Officer (P.E.)
- Director (Plg.) MPMR & Project
- Director (Plg.) MPMR & NCR
- Director (Plg.) GIS
- Director System for uploading on DDA website
- Representative of I.I.T. Roorkee
- Dr. Kamal Jain, Professor, Department of Civil Engineering, IIT Roorkee.

प्रतिलिपि :-

- Respective firm/ organization through DDA website.



File No.F.18(17)/2019/MP

दिनांक : 16/12/2019

ATTENDANCE SHEET

विषय : First Meeting of Bid-evaluation Committee RFP for drone mapping in Delhi For preparation of MPD-2041, is Pre-Bid Meeting.

S. No.	Name	Designation and Department Name	Phone Number	Email ID	Signature
	Commissioner (Planning), DDA				(In chair)
Sector Experts					
1					
2					
Participants :-					
1	DINESH GUPTA	VICE PRESIDENT DIC TECHNOLOGIES	9818124412	dinesh.gupta@iictechnologies.com	
2	SAURAV SEN	General Manager Caritas Eco Systems	9818122741	saurav.sen@caritaseco.in	S. Sen
3	KAMAL SHARMA	CEO KAMBILL SYSTEMS	9815204779	kamal@kambillsystems.com	
4	VAISHALI GUPTA	BUSINESS DEV KAMBILL SYSTEMS	9315921717	sales@kambillsystems.com	
5	AMIT TIKOO	GEOKNO INDIA PVT LTD GENERAL MANAGER	9599224439	amit.tikoo@geokno.com	
6	SHANTANU THAKUR	GEOKNO INDIA P. LTD PROJECT MANAGER	847736686	shantanu.thakur@geokno.com	
7	KULDEEP SINGH	URBAN PLANNER DDF CONSULTANTS	8920619151	kuldeep.singh@ddfgroup.com	
8	MANISH BOORA	URBAN PLANNER DDF CONSULTANTS	9466565574	manishboora@ddfgroup.com	
9	Jeyrosh Pattak	IIT Roorkee	9818033500	jeyroshpattak@gmail.com	
10	AMIT KUMAR SINGH	Neogeoinfo Technologies	9015180621	amit.singh@neogeoinfo.com	
11	A. K. SINGHAL	By A.O (PE)	9310003191		
12	Aditya Sarveen	windhawk	9818338464		
13	Jswarjeet Singh	Sn. Sales Mgr	9868910022	ijsh6845@iictechnologies.com	
14	A.A Ansari	CEO APPLIED GEO TECH	9312240055	a.ansari@appliedgeotech.com	
15	Mohammed Tayyab	A.S. (GIS)	9971838471	tayyab617@gmail.com	
16	Nishant Sumran	Director Windhawk	8700019820	nishant@windhawk.in	
17	Pranay Kumar	Windhawk	8210002940	pranay@windhawk.in	
18	Utsav Soni	Windhawk	9685497223	utsav@windhawk.in	
19	H.K. BHARTI	DIRECTOR (PE)	9818500422	dirnrc@dda.gov.in	

Sr. No	Name	Designation and Department Name	Phone Number	Email ID	Signature
20	Rajesh Singh	VP (Business Develop)	999911125	rajesh@mapmyIndia.com	[Signature]
21	Vilas Kulkarni	ANP	9650084735	vilas@mapmyIndia.com	[Signature]
22	Rishi kumar	Gr Manager	9958393123	rishi@mapmyIndia.com	[Signature]
23	SUDHIR KR. KATU	DIRECTOR (PLG) DDA	9650779357		[Signature]
24	Kamal Jain	IIT Roorkee	9760026284	kjainf@iit@ gmail.com	[Signature]
25	AKA ARYA	Air Coly Post	9831158516	arka25arya@gmail.com	[Signature]
26	Nishi Singh	Planning Assistant MPMR & NCR	8439097715	ar-nishu Singh 19 @ gmail.com	[Signature]
27	KARAMDEEP	ASSTL-DIR(PLG) MPMR, UMT	7599080546	karamdeepgokhar@gmail.com	[Signature]
28	Animesh	AD (MPMR)	9990978678	-	[Signature]
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File No.F.18(17)/2019/MP

दिनांक : 16/12/2019

ATTENDANCE SHEET

विषय : First Meeting of Bid-evaluation Committee for ToR UAV (Drone) captured ortho image based GIS mapping & Land Use Survey Agency for MPD-2041.

S. No.	Name	Designation and Department Name	Phone Number	Email ID	Signature
	Commissioner (Planning), DDA		(In chair)		
1	Kamal Jain	Professor IIT Roorkee	9760026284	kjainf@iitr@gmail.com	
2	Peeyush Pathak	IIT Roorkee	9818632500	peeyushpathak@iitr@gmail.com	
3	A. R. SINGHAL	Dy VAO (P)	9310003191		
4	H. K. BHARTI	DIRECTOR (PLG)	9818368429	dirnarela@dda.org.in	
5	SUDHIR KR. KANH	DIRECTOR (PLG)	9650779352		
6	ANCA APFA	Dy. Dir (P) MMR	9891158546	allca2suyal@gmail.com	
7	KARAMDEEP	Asst. Dir (P) MMR	7599080546	karamdeepkhas@gmail.com	
8	Animesh	AD (PLG) MPMR	9990978678	animesh.dda@gmail.com	
9	Nishi Singh	Planning Assistant	8459097775	ar.nishisingh19@gmail.com	
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1. Firm/ Organisation: DWI Consulting Pvt Ltd.

Reference	Content of ToR	Clarification sought	Decision
	<ul style="list-style-type: none"> • Release of this RFP • Deadline for submission • Pre-bid meeting • Deadline for Proposal submission • Opening of Technical Bid Opening of Financial Bid 	Please provide specific dates.	The RFP shall be released after incorporating suggestions of finance wing, legal wing and the observations received in the pre-bid meeting which are duly considered by the Bid Evaluation Committee. The revised RFP will include all the dates for technical and financial proposal.
2. Scope of Work, Component A, Pt. 5 & 6.	<p>5. The GIS ready map by LSA shall be able to fit into the existing digitized GIS basemap of Delhi (prepared on satellite imagery of June 2018 vintage) at the scale of 1: 4000 and resolution 50 cm as provided by Survey of India (SoI) to DDA.</p> <p>6. The existing digitized GIS basemap of Delhi by SoI will also include digitized layout plans of various schemes of DDA which are currently being undertaken by RSI.</p>	<p>Please confirm whether the GIS base map available with DDA has:</p> <ol style="list-style-type: none"> 1. Floor level details? 2. Use premise details? 	As per ToR.
		<ol style="list-style-type: none"> 1. What is the format of GIS data available with DDA? 2. What is the coverage of GIS data available with DDA? 3. Are there any areas of NCTD left out in the base map and GIS database? If yes, please provide the list of areas. Details may be shared later. 	As per ToR.
2. Scope of Work, Component A, Pt. 10	All necessary permissions from to fly Aircraft/UAV from DGCA/MoD access to aerial survey including co-ordination with Delhi ATC/NPNT Compliance/ Digital Sky of DGCA etc shall be undertaken by LSA. DDA can only facilitate in initiating the permission process through a request letter, follow up of the same is the core responsibility of LSA.	Delhi, being the nation's capital, have many sensitive establishments including the Cantonment. Mere facilitating the permission process will not help in achieving the project objectives. DDA should take responsibility, apart from facilitation, of getting the required flying permissions. Please confirm. The Consultant will do their due diligence by following up the relevant authorities.	As per ToR.
2. Scope of Work, Component B, Pt. 2 Note (b)	In case of institutions or where more than one building form a part of a cluster or compound, e.g. residential colony, district centers, hospital compounds, schools, etc. the overarching land use shall be assigned to all floors. Floor-wise detailing of uses shall not be done for such sites. Names of such institutions, district centers, hospitals, etc. shall be duly recorded.	The level of details of Land Use information to be collected is inconsistent. Large complexes (or institutions) may have multiple land uses such as residential, commercial, school, office, institutions etc. Putting a single overarching land use will be not be able to identify actual use. At other places the level of detail asked is very high e.g on a plotted development even a floor may be divided into shops and residential units	As per ToR.

2. Scope of Work, Component B, Pt. 15	LSA shall also co-ordinate with the ULB's for integrating property data (tax collection) under facilitation by DDA into the common GIS data base.	The scope of Land Use Survey is very different from scope of Property Tax. The time frame proposed for the project appears unrealistic for the scale, loading such unrelated tasks will only complicate and cause delays further. Who would take responsibility of correctness of property tax data? What if there are inconsistencies between land use and property tax? Would the LSA report to multiple clients (DDA & respective ULB)? Request to remove this from the scope.	Property data in this case is land-use of property/ uses of floors and information required as per the format provided by DDA in association with IIT Roorkee who will be supporting DDA as Technical GIS advisor as Master Consultant.
4. Documents Comprising the BID, Envelop 2, Pt. 13	LSA should have minimum 30 GIS / RS experts on company payroll	Number of experts is not a measurement of successful project completion. The Consultant suggest this clause be removed.	As per ToR.
4. Documents Comprising the BID, Envelop 2, Pt. 14	LSA should submit UAOP from DGCA if proposed survey is to be undertaken using UAV	According to DGCA guidelines, Section 7, UAOP is not required for Nano and Micro RPA operating below 200 feet agl. This clause may be deleted.	As per DGCA guidelines.
5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 3	LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same $\geq 500 \text{ sq. km to } \leq 1000 \text{ sq. km.} = 5 \text{ marks}$ $\geq 1001 \text{ sq. km to } \leq 1500 \text{ sq. km.} = 10 \text{ marks}$		Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same. $\geq 500 \text{ sq. km to } \leq 1000 \text{ sq. km.} = 5 \text{ marks}$ $>1000 \text{ sq. km} = 10 \text{ marks}$
5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 4	LSA should have experience of physical survey/land use survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. $\geq 500 \text{ sq. km to } \leq 1500 \text{ sq. km.} = 5 \text{ marks}$	The criteria of 500 sq. km. in a single project is restrictive and may be relaxed. $\geq 25 \text{ sq. km. to } \leq 50 \text{ sq. km} = 5 \text{ marks}$ $\geq 51 \text{ sq. km. to } \leq 100 \text{ sq. km.} = 10 \text{ marks}$	Modified as: LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 -sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any -central /state Government organization of India. $\geq 500 \text{ sq. km to } \leq 1000 \text{ sq. km.} = 5 \text{ marks}$

	>=1001 sq. km to <= 1500 sq. km. = 10 marks		>1000 sq. km = 10 marks
5. Evaluation and Qualification Criteria, Marking/ Evaluation Criteria, Pt. 7	LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers >5 lacs <8 lacs - 5 marks >8 lacs - - 10 marks	The criteria of a town of 5 lacs population will be equivalent of less than 1 lac properties. The alternative criteria should be at least equivalent on scale.	Modified as: LSA must have surveyed minimum of 1 lac properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers >1 lacs to < 1.6 lacs - 5 marks >= 1.6 lacs - 10 marks
9. Timelines and Deliverables	Submission of final database along with entire data and maps, supported by a detailed report = ED+52 weeks	For execution of scope of work, the 52 weeks timeline as defined in the ToR for Delhi is unrealistic. The consultant suggests to increase it to minimum 80 weeks. Please confirm.	Modified as: • Time of Completion of Work – 60 weeks • The time taken for taking permissions for drone/UAV survey shall be maximum 3 weeks, after which respective timelines & deliverables shall be applicable.

2. Firm/ Organisation: Geokno India Private Limited

Reference	Content of ToR	Clarification sought	Decision
4. Documents Comprising the BID, Envelop 2, Pt. 6	The LSA should be in the field of GIS based master planning since past 5 years	Since Master Plan is also one of the solutions of GIS, All the LSA will not be having this experience Hence, we request you to kindly consider the area based development plan creation or any city mapping experience. We request you to kindly amend the following change: The LSA should be in the field of GIS based master planning since past 3 years	Modified as: The LSA should be in the field of GIS based urban projects since past 5 years
5. Evaluation and Qualification Criteria, Marking / Evaluation criteria Pt. 4	LSA should have experience of physical survey/land use survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 500 sq. km to <= 1500 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks	As per the given marking criteria, we understand that 5 marks for >=500 sq. km to <=1500 sq. km experience of physical survey/ landuse survey/household survey But again it is mentioned that 10 marks for >=1001 sq. km to <= 1500 sq. km. survey experience We understand this is a typographical error. Kindly amend the same	Modified as: LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 500 sq. km to <= 1000 sq. km. = 5 marks >1000 sq. km = 10 marks

	<ul style="list-style-type: none"> • Release of this RFP • Deadline for submission • Pre-bid meeting • Deadline for Proposal submission • Opening of Technical Bid Opening of Financial Bid 	Please provide specific dates	The RFP shall be released after incorporating suggestions of finance wing, legal wing and the observations received in the pre-bid meeting which are duly considered by the Bid Evaluation Committee. The revised RFP will include all the dates for technical and financial proposal.
2. Scope of Work, Component A, Pt. 5.	5. The GIS ready map by LSA shall be able to fit into the existing digitized GIS basemap of Delhi (prepared on satellite imagery of June 2018 vintage) at the scale of 1: 4000 and resolution 50 cm as provided by Survey of India (SoI) to DDA	Please elaborate the format of existing digitized GIS basemap of Delhi. Will DDA will supply the existing digitized GIS basemap along with satellite imagery used for this purpose. Kindly confirm.	As per ToR.
2. Scope of Work, Component A, Pt. 6.	6. The existing digitized GIS basemap of Delhi by SoI will also include digitized layout plans of various schemes of DDA which are currently being undertaken by RSI	Please confirm whether the GIS base map available with DDA has: 1. Floor level details? 2. Use premise details?	As per ToR.
		What is the coverage of GIS data available with DDA?	As per ToR.
2. Scope of Work, Component B, Pt. 2 Note (b)	In case of institutions or where more than one building form a part of a cluster or compound, e.g. residential colony, district centers, hospital compounds, schools, etc. the overarching land use shall be assigned to all floors. Floor-wise detailing of uses shall not be done for such sites. Names of such institutions, district centers, hospitals, etc. shall be duly recorded.	The level of details of Land Use information to be collected is inconsistent. Large complexes (or institutions) may have multiple land uses such as residential, commercial, school, office, institutions etc. Putting a single over-reaching land use will not be able to identify actual use. At other places the level of detail asked is very high e.g on a plotted development even a floor may be divided into shops and residential units	As per ToR.
2. Scope of Work, Component B, Pt. 15	LSA shall also co-ordinate with the ULB's for integrating property data (tax collection) under facilitation by DDA into the common GIS data base.	The scope of Land Use survey is very different from scope of Property Tax. The time frame proposed for the project appears unrealistic for the scale, loading such unrelated tasks will only complicate and cause delays further. Who would take responsibility of correctness of property tax data? What if there are inconsistencies between land use and property tax? Would the LSA report to multiple clients (DDA & respective ULB)? Request to remove this from the scope.	Property data in this case is land-use of property/ uses of floors and information required as per the format provided by DDA in association with IIT Roorkee who will be supporting DDA as Technical GIS advisor as Master Consultant.
2. Scope of Work, Component A, Pt. 10	All necessary permissions from to fly Aircraft/UAV from DGCA/MoD access to aerial survey including co-ordination with Delhi ATC/ NPNT Compliance/ Digital Sky of DGCA etc shall be undertaken by LSA. DDA can only facilitate in initiating the permission process through a request letter, follow up of the same is the core responsibility of LSA. UAV's/ Aircraft shall comply to all DGCA/ MoD norms including area permission and Security Vetting of data after data capture. Required UAOP/UIN/NSOP permit	We understand that a number of Delhi city areas (like LBZ, IGI, etc) comes under high security classification category. Such areas may be prohibited for flying by MoD and other security agencies. As per past project experience with DGCA and MoD for aerial survey permissions (Aircraft and UAV's), minimum 2-3 months are required to obtain aerial survey permit in case of Indian aircraft/crew and 6-8 months are required in case of foreign aircraft/crew.	As per ToR.

	etc as applicable must be submitted. All such permissions obtained be submitted to DDA for its record before start of the work. LSA will indemnify DDA against any regulatory violations.	Hence, this timeline for obtaining permissions needs to be considered. For areas where flying is not permitted, deliverables using high resolution satellite imagery be accepted.	
2. Scope of Work, Component A, Pt. 3	The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, satellite image, field survey inputs, existing land use, proposed land use etc	The tender envisages use of UAV/Drones for capturing the data. Flying of UAV/Drones falls under the purview of DGCA. Currently as per regulations issued by DGCA, UAV/Drones are required to be NPNT compliant. Currently only 2 two Drone manufacturing companies have become NPNT compliant (Refer Article: https://timesofindia.indiatimes.com/business/india-business/afirst-two-bengaluru-firms-getdgca-nodfordrones/articleshow/69886644.cms and specifically the comment in article by DGCA official that “Only these can be legally used in India”.) – Hence, the tender may be severely constrained by the limited number of legally available drones in India. Additionally, as there is no clarity on these aspects in the tender, this loopholes in the tender might be used by vendors to use illegal drones which may cause regulatory issues for the Principal, i.e., The Delhi Development Authority (DDA) , and jeopardise the project wasting Government time and resources. Ministry of Defence as required by Annexure XI of DGCA regulations lies with the department or with the vendors. Due to lack of this clarity, this issue may also cause regulatory issues for Govt of Haryana and jeopardise the project wasting Government time and resources.	Modified as: The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required) , satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame) Thematic content of the GIS database is described below but not limited to: <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl
	UAV/ Drone Technology	Besides regulatory issues of UAV, it is noted that UAV based surveys are recommended if the area is 10 sq km to 20 sq km. For larger areas, UAV survey becomes inefficient as per day data capture is limited. Airborne (aircraft) data capture has very clear regulations and hence there is no regulatory risk to the government. A large number of projects are being done following this regulatory framework. An additional benefit of using aircraft is that data will be captured much faster (100 to 200 sq km in one day) than use of UAV’s alone (5 to 10 sq km in one day) . As the area to be covered is approximately 1007.47 sq km, hence this aircraft-	As per ToR.

		based survey is the optimum technology for data capture which would take around 10 to 15 days while a UAV might take around 70 to 150 days based on the number of drones. Hence ,its advised to remove UAV/Drone technology from RFP.	
	Formulation of GIS based master plan for AMRUT cities- Design and Standards No. of GCPs/ At least one GCP for every 5 sq	One of the advantages of Aerial LiDAR survey technology over the UAV/ High resolution satellite imagery based photogrammetry technology is minimum number of Ground control point requirments. Hence, necessity to have the DGPS control points for every 5 sqkm may be waived off. The required results will be achieved with minimal number of control points.	As per ToR.
9. Timelines and Deliverables	Submission of final database along with entire data and maps, supported by a detailed report = ED+52 weeks	For execution of scope of work, the 52 weeks timeline as defined in the ToR for Delhi is unrealistic. The consultant suggests to increase it to minimum 80 weeks. Please confirm.	Modified as: <ul style="list-style-type: none"> • Time of Completion of Work – 60 weeks • The time taken for taking permissions for drone/UAV survey shall be maximum 3 weeks, after which respective timelines & deliverables shall be applicable.

3. Firm/ Organisation: Excel Geomatics Pvt. Ltd.

Reference	Content of ToR	Clarification sought	Decision
3. Eligibility of LSA, 3.1.1	Consortium Allowed of not more than two partners	Consortium Allowed of not more than Three partners	As per ToR.
4. Documents Comprising the BID, Envelop 2, Pt. 2	LSA shall be registered in India under Companies Act 1956 and must be operational since last 10 years	LSA shall be registered in India under Companies Act 1956 and must be operational since last 7 years	As per ToR.
4. Documents Comprising the BID, Envelop 2, Pt. 4	LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same	LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 100 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization/ Prominent Private Limited Company in India and preparation of GIS based map of master plan layers for the same.	Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan

4. Documents Comprising the BID, Envelop 2, Pt. 5	LSA should have experience of physical survey/landuse survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India	LSA should have experience of physical survey/landuse survey/household survey covering a minimum geographical area of 100 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India/ Prominent Private Limited Company of India	LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India.
4. Documents Comprising the BID, Envelop 2, Pt. 11	LSA must have experience in Providing GIS Land-use mapping and Door to door household survey using Android mobile application for towns having population more than 5 lacs as per census 2011 for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Panoramic Imagery survey of door to door from moving vehicle for generating AMRUT layers in town with population more than 5 lacs	LSA must have experience in Providing GIS Landuse mapping and Door to door household survey using Android mobile application for towns having population more than 2 lacs as per census 2011 for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization/ Prominent private Limited Company of India during the last 5 years Or Panoramic Imagery survey of door to door from moving vehicle for generating AMRUT layers in town with population more than 2 lacs	As per ToR.
4. Documents Comprising the BID, Envelop 2, Pt. 12	LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers	LSA must have surveyed minimum of 1 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization in India for any central /state Govt. organization/ / Prominent private Limited Company of India during the last 5 years Or Carried out panoramic image capture properties in town of 2 lac population for the purpose of AMRUT GIS layers	Modified as: LSA must have surveyed minimum of 1 lakh properties in urban area as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in urban area of 5 lac population for the purpose of AMRUT GIS layers.
5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 3	LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same >= 500 sq. km to <= 1000 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks	LSA should have experience of acquiring and processing of Aerial(Fixed/rotary wing Aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 100 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same. >= 100 sq. km to <= 500 sq. km. = 5 marks >=501 sq. km to <= 1500 sq. km. = 10 marks	Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same. >= 500 sq. km to <= 1000 sq. km. = 5 marks > 1000 sq. km = 10 marks

<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 4</p>	<p>LSA should have experience of physical survey/land use survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 500 sq. km to <= 1500 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks</p>	<p>LSA should have experience of physical survey/landuse survey/household survey covering a minimum geographical area of 100 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 100 sq. km to <= 500 sq. km. = 5 marks >=501 sq. km to <= 1500 sq. km. = 10 marks</p>	<p>Modified as: LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any -central /state Government organization of India. >= 500 sq. km to <= 1000 sq. km. = 5 marks >1000 sq. km = 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking/ Evaluation Criteria, Pt. 6</p>	<p>LSA must have experience in Providing GIS Land-use mapping and Door to door household survey using Android mobile application for towns having population more than 5 lacs as per census 2011 for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years. Or Panoramic Imagery survey of door to door from moving vehicle for generating AMRUT layers in town with population more than 5 lacs</p>	<p>LSA must have experience in Providing GIS Landuse mapping and Door to door household survey using Android mobile application for towns having population more than 2 lacs as per census 2011 for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization/ Prominent private Limited Company of India during the last 5 years.</p>	<p>As per ToR.</p>
<p>5. Evaluation and Qualification Criteria, Marking/ Evaluation Criteria, Pt. 7</p>	<p>LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers >5 lacs <8 lacs - 5 marks >8 lacs - - 10 marks</p>	<p>LSA must have surveyed minimum of 1 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 5 years Or Carried out panoramic image capture properties in town of 2 lac population for the purpose of AMRUT GIS layers =>1 lacs <5 lacs - 5 marks >5 lacs - - 10 mark</p>	<p>Modified as: LSA must have surveyed minimum of 1 lac properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers >1 lacs to < 1.6 lacs - 5 marks >= 1.6 lacs - 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking/ Evaluation Criteria, Pt. 9</p>	<p>Cumulative Turnover of LSA during the last 3 financial years = >5 crore to < 15 crore = 5 marks >= 15 crore to < 20 crore = 7 marks More than 20 crore = 10 marks</p>	<p>Cumulative Turnover of LSA during the last 3 financial years = > Upto 5 crore = 5 marks >= 5 crore to < 20 crore = 7 marks More than 20 crore = 10 marks</p>	<p>Modified as: Cumulative Turnover of LSA during the last 3 financial years = >5 crore to < 15 crore = 5 marks >= 15 crore to <= 20 crore = 7 marks More than 20 crore = 10 marks</p>

4. Firm/ Organisation: DDF Consultants

Reference	Content of ToR	Clarification sought	Decision
2. Scope of Work, Component A, Pt. 1	To prepare a GIS ready map for geographic asset identification and mapping with a special emphasis on built profile, existing infrastructure and utilities, as built infrastructure	In case of existing infrastructure and utilities, what is the extent specific to water supply, sewerage and drainage network, if only trunk level network taken to be in consideration or detailing at household level. Also_x0009_please_x0009_clarify_x0009_digitized_x0009_maps_x0009_either provided to the consultant or consultant is responsible to collect.	As per ToR.
2. Scope of Work, Component A, Pt. 2	In case Aircraft/UAV image acquisition is not permitted by government, then the base map shall be created using HRSI Images and DGPS/ ETS / vehicle mounted mobile scanners etc.	As per the requirement of point 2., this part must be_x0009_split_x0009_into_x0009_two_x0009_parts_x0009_first_x0009_is_x0009_capturing_x0009_/ procurement_x0009_of_x0009_imagery_x0009_for_x0009_base_x0009_map preparation, as Aircraft/UAV imagery has abundance of specification need or mosaicking. In case of HRSI imagery, either client is responsible to procure the image or consultant, other side for digitization of LULC and Built Up area, who is responsible.	As per ToR.
2. Scope of Work, Component A, Pt. 10	All necessary permissions from to fly Aircraft/UAV from DGCA/MoD access to aerial survey including co-ordination with Delhi ATC/NPNT Compliance/ Digital Sky of DGCA etc shall be undertaken by LSA. DDA can only facilitate in initiating the permission process through a request letter, followup of the same is the core responsibility of LSA. UAV's/Aircraft shall comply to all DGCA/MoD norms including area permission and Security Vetting of data after data capture. Required UAOP/UIN/NSOP permit etc as applicable must be submitted. All such permissions obtained be submitted to DDA for its record before start of the work. LSA will indemnify DDA against any regulatory violations.	In case of permissions for fly Aircraft/UAV, from government is the crucial part, and time taken process which can further effect the project deadline, for the same Plug-and-Play model must be initiate by client for effectiveness_x0009_in project with holistic approach.	As per ToR.

2. Scope of Work, Component B, Pt. 6	Mobile applications on an appropriate platform shall be developed and utilized for the surveys. All such survey instruments shall be connected to a server to submit data on a real time basis on a cloud server. Application should work on online and offline mode. In case of non-availability of internet connection, data should be synced to cloud as soon as connectivity is available. The data shall be time stamped and GPS tagged to ensure the accuracy and reliability of the data collected. The database structure and the app shall be approved by the DDA before commencement of the field Survey.	As per the specification of work after the assigning the project to the bidder, unique application will be generated as per the joint requirements which further help in the Progress of the project	As per ToR.
2. Scope of Work, Component B, Pt. 15	LSA shall also co-ordinate with the ULB's for integrating property data (tax collection) under facilitation by ODA into the common GIS data base.	At what extend the property tax data to be included in GIS data prepared at 1:500 scale.	Property data in this case is land-use of property/ uses of floors and information required as per the format provided by DDA in association with IIT Roorkee who will be supporting DDA as Technical GIS advisor as Master Consultant.
Attribute data collected on application for built up structure, but in case of LULC data at what platform verification is to be done on hard copyprints or online application base by clicking the concerned polygon, line feature, Point feature			As per ToR.
8. As it is mentioned that the Master Plan area is divided into 13 zones, we would like to suggest you that please divide the work on groundverification and mapping to numberofconsultants to enhancethe quality and to reduce the time span because completing such exercise in 56 weeks by one consultantsis a difficult task.			As per ToR.

5. Firm/ Organisation: Pioneer Foundation Engineers Pvt. Ltd.

Reference	Content of ToR	Clarification sought	Decision
5. Evaluation and Qualification Criteria, Marking and Evaluation Criteris, Pt. 1	Evaluation and Qualification Criteria : LSA's ISO certification ISO 9001:2015 - 2 Marks ISO 27001:2013 –5 marks	LSA's ISO certification ISO 9001:2015 and CMMi3 - 5 Marks ISO 27001:2013 –5 marks	Modified as: ISO Certification: ISO 9001:2015 & CMMi3- 5 marks ISO 27001:2013 - 5 marks
5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 2	LSA should be registered and operational in India in the field of GIS since last 5 years submission 5 years = 2 Marks > 5years -10 Years = 5 Marks >10 years = 10Marks	LSA should be registered and operational in India in the field of GIS since last 5 years submission 10 years = 2 Marks > 10 years -20 Years = 5 Marks >20 years = 10Marks	As per ToR.

<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 3</p>	<p>LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same >= 500 sq. km to <= 1000 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks</p>	<p>LSA should have experience of aerial/ field data collection area of 200 sq. km. in India cumulative for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same >= 200 sq. km to <= 500 sq. km. = 5 marks < 500 sq. km. = 10 marks</p>	<p>Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same. >= 500 sq. km to <= 1000 sq. km. = 5 marks >1000 sq. km = 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 4</p>	<p>LSA should have experience of physical survey/land use survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 500 sq. km to <= 1500 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks</p>	<p>Lead Bidder should have experience of physical survey/land use survey/household/ property survey/ field data collection covering a minimum geographical area of 200 sq. km. in India cumulative for Central Govt. Of India/ any State Government Organization/ PSU in India for any central/state Government organization of India. >= 200 sq. km to <= 500 sq. km. = 5 marks < 500 sq. km. = 10 marks</p>	<p>Modified as: LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any -central /state Government organization of India. >= 500 sq. km to <= 1000 sq. km. = 5 marks >1000 sq. km = 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 5</p>	<p>LSA should have completed minimum one project of GIS Base/land use mapping of worth Rs. 50 lacs for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India 1 project = 5 marks 2- 3 Projects = 10 mark</p>	<p>LSA should have completed minimum one project of GIS Base/land use mapping/ Drone survey of worth Rs. 25 lacs for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India 1 project = 5 marks 2- 3 Projects = 10 marks</p>	<p>As per ToR.</p>

<p>5. Evaluation and Qualification Criteria, Marking and Evaluation Criteria, Pt. 6</p>	<p>LSA must have experience in Providing GIS Landuse mapping and Door to door household survey using Android mobile application for towns having population more than 5 lacs as per census 2011 for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years</p> <p>Or</p> <p>Panoramic Imagery survey of door to door from moving vehicle for generating AMRUT layers in town with population more than 5 lacs</p> <p>Upto 5 projects –5 marks More than 5 projects –10 marks</p>	<p>LSA must have experience in Providing GIS Landuse mapping and Door to door household survey using Android mobile application for atleast 5 ULBs for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years</p> <p>Or</p> <p>Panoramic Imagery survey of door to door from moving vehicle for generating AMRUT layers in town with population more than 5 lacs</p> <p>5-10 projects –5 marks >10 projects –10 marks</p>	<p>As per ToR.</p>
<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 7</p>	<p>LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years</p> <p>Or</p> <p>Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers</p> <p>>5 lacs <8 lacs - 5 marks</p> <p>>8 lacs - - 10 marks</p>	<p>LSA must have surveyed minimum of 2 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years</p> <p>>1 lacs <2 lacs = 10 marks >2 lacs = 20 marks</p>	<p>Modified as:</p> <p>LSA must have surveyed minimum of 1 lac properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years</p> <p>Or</p> <p>Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers</p> <p>>1 lacs to < 1.6 lacs - 5 marks</p> <p>>= 1.6 lacs - 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 9</p>	<p>Financial criteria - Cumulative Turnover of LSA during the last 3 financial years</p> <p>= >5 crore to < 15 crore = 5 marks</p> <p>>= 15 crore to < 20 crore = 7 marks</p> <p>More than 20 crore = 10 marks</p>	<p>Financial criteria - Cumulative Turnover of Lead Bidder during the last 3 financial years</p> <p>= >10 crore to < 20 crore = 5 marks</p> <p>>= 20 crore to < 40 crore = 7 marks</p> <p>More than 50 crore = 10 marks</p>	<p>Modified as:</p> <p>Financial criteria - Cumulative Turnover of LSA during the last 3 financial years</p> <p>= >5 crore to < 15 crore = 5 marks</p> <p>>= 15 crore to <= 20 crore = 7 marks</p> <p>More than 20 crore = 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Pt. 10</p>	<p>LSA having work experience in Delhi / NCR project from government / PSUs</p> <p>1 Project = 1 mark</p> <p>Additional 4 projects (4 X 1) = 4 marks</p>	<p>Request to remove the location specific criteria</p>	<p>As per ToR.</p>

5. Evaluation and Qualification Criteria, Pricing Format, Pt. 3	Pricing format : 3. Web based application development with unlimited users and portability with hand held devices	Kindly give requirements/specifications for the Application. Hardwares like Server along with storage will also be required for hosting the large amount data captured using Drones. Please clarify if Hardware is already available or not. If LSA needs to supply the same, specifications are requested for the Hardware as well.	As per ToR.
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6. Firm/ Organisation: IIC Technologies Ltd.

Reference	Content of ToR	Clarification sought	Decision
Addendum No-1, Pg. 1, Schedule of events	Schedule for submission of the Proposal regarding Terms of Reference (ToR)_Aircraft/ UAV (Drone) captured LiDAR/ Otho image based GIS mapping & Land Use Survey Agency for MPD 2041.	The term ToR used in the document is confusing. We understand that this is the full RFP requiring technocommercial bid for evaluation and award of contract.	Modified as: • Term RFP after incorporating comments from legal and FM.
Addendum No-1 , Pg 1, Schedule of events	Deadline for Proposal submission Mode: Online only at dirplgmpmr@dda. or.in ddplgmpmr@dda.o rg.in	Generally online submission of tenders is done through e-procurement portal.	Modified as: Tenders will be submitted on Government website of E-procurement. NIC at URL http://eprocure.gov.in/eprocure/app.
2. Scope of Work, Component A, Pt. 3	<p>The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, satellite image, field survey inputs, existing land use, proposed land use etc.</p> <p>Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing and proposed) • Drainage • Surface Water Bodies and canals • Road & Rail (existing and proposed) • Transportation Nodes • Health facility (existing and proposed) • Education facility (existing and proposed) • Water Supply infrastructure (proposedas per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) 	<p>Kindly elaborate on the following</p> <ol style="list-style-type: none"> 1. Role of cadastral maps in preparation of project GIS database 2. Input data (format, scale, quantity of cadastral maps) DDA will provide to LSA 3. Processing to be performed by LSA with cadastral maps, and deliverables expected. 	<p>Modified as:</p> <p>The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required), satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame)</p> <p>Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal

	<ul style="list-style-type: none"> • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl 		<p>corporations/wards etc)</p> <ul style="list-style-type: none"> • Urban sprawl
2. Scope of Work, Component A, Pt. 3	<p>Modified as:</p> <p>Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing and proposed) • Drainage • Surface Water Bodies and canals • Road & Rail (existing and proposed) • Transportation Nodes • Health facility (existing and proposed) • Education facility (existing and proposed) • Water Supply infrastructure (proposed as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl 	<p>We assume DDA will provide data for the following thematic content:</p> <ul style="list-style-type: none"> · Sewage infrastructure · Ground water prospect area · Hazard zones (Flood and earthquake) · Administrative boundaries (Municipal corporation/wards etc) 	<p>Modified as:</p> <p>The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required), satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame)</p> <p>Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl
2. Scope of Work, Component B, Pt. 1	<p>LSA shall undertake extensive field survey/ physical survey to collect attributes for each of the identified built structure/building in respective Planning Zones through a compatible app based technology (android or any at par application) for updation of building records/site information on the common GIS platform. Database structure shall be finalized at the start of the project for uniformity.</p>	<p>It is suggested that field survey is limited to landuse class verification on cluster basis only for the purpose of master planning activity.</p> <p>Survey of each built structure / building in Delhi will have major impact on project timeline and cost which we believe is not required for master planning activity</p>	<p>As per ToR.</p>

<p>2. Scope of Work, Component B, Pt. 2</p>	<p>The on-ground observation shall include for each built structure/buildings/ utilities, the landuse survey/predominant use on each floor (in terms of approximate built area), activity type/use premise information, number of floors, ownership information to the extent possible and other site related information required to build an existing landuse layer for Delhi. Different land use on each floor/ separate numbering of each unit (e.g.flat number)shall be marked as separate unit.</p>	<p>It is suggested that on-ground observation is limited to landuse class verification on cluster basis only for the purpose of master planning activity.</p> <p>Survey of each built structure / building in Delhi will have major impact on project timeline and cost which we believe is not required for master planning activity.</p> <p>Built area, activity type/use, premise information, number of floors, ownership information, flat number may be excluded from scope of work as we believe this data is not relevant for purpose of master planning</p>	<p>As per ToR.</p>
<p>2. Scope of Work, Component B, Pt. 2 Note (b)</p>	<p>In case of institutions or where more than one building form a part of a cluster or compound, e.g. residential colony, district centers, hospital compounds, schools, etc. the overarching land use shall be assigned to all floors. Floorwise detailing of uses shall not be done for such sites. Names of such institutions, district centers, hospitals, etc. shall be duly recorded.</p>	<p>Landuse verification on overarching / cluster basis is fine. RFP document needs to be made consistent with this principle for field verification.</p>	<p>As per ToR.</p>
<p>2. Scope of Work, Component B, Pt. 10</p>	<p>Data captured on the ground will be used to update attribute tables in the existing GIS database available with DDA on a daily basis. This will also include updating the map in terms of number of buildings and final assignment of URN numbers. Survey data integration with GIS database shall ensure the total count of survey building records as equal to the count of GIS Building footprint layer. Any modifications/changes required in the URNs based on ground survey will be reflected and finalized after the ground surveys and verification processes have been completed.</p>	<p>Landuse verification on overarching / cluster basis is fine. RFP document needs to be made consistent with this principle for field verification.</p> <p>We suggest that any references to individual property survey/URN no are excluded from RFP</p>	<p>As per ToR.</p>
<p>2. Scope of Work, Component B, Pt. 15</p>	<p>LSA shall also coordinate with the ULB's for integrating property data (tax collection) under facilitation by DDA into the common GIS data base.</p>	<p>Property tax is a separate project in itself and has no bearing to master planning activity. We request that property tax is excluded from scope of current RFP.</p>	<p>Property data in this case is land-use of property/ uses of floors and information required as per the format provided by DDA in association with IIT Roorkee who will be supporting DDA as Technical GIS advisor as Master Consultant.</p>

4. Documents Comprising the BID, Envelop 1, Pt. 1	DD/Banker's Cheque of Rs. 10,00,000- as BID Fee or MSME exemption (certificate/UAM to be shared)	Kindly confirm correct BID fee.	Modified as: Online Submission of Rs. 20,000/- as BID Fee or MSME exemption (certificate/ UAM to be shared)
4. Documents Comprising the BID, Envelop 1, Pt. 2	EMD of Rs. 10,00,000 /- MSME exemption (certificate/UAM to be shared)	EMD may please be accepted in the form of Bank guarantee. Kindly confirm.	Modified as: EMD of Rs. 51,00,000 /-(Lump Sum) MSME exemption (certificate/ UAM to be shared)
4. Documents Comprising the BID, Envelop 2, Pt. 6	The LSA should be in the field of GIS based master planning since past 5 years	Master planning is not part of scope of work. We request this item is dropped from eligibility requirement	Modified as: The LSA should be in the field of GIS based urban projects since past 5 years
4. Documents Comprising the BID, Envelop 2, Pt. 8	Cumulative turnover of the LSA for the last three financial years ending should be equal to or greater than Rs. 5 Crore.	Considering the potential and quantum of work for this project, We request you to kindly raise the cumulative turnover of the LSA for the last three financial years to 25 Crore minimum.	As per ToR.
5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 10	LSA having work experience in Delhi/NCR project from government/ PSU's 1 project = 1 mark Additional 4 projects (4x1)=4 marks	We understand that purchase orders from government/ PSU's in Delhi/ NCR will suffice.	As per ToR.
5. Evaluation and Qualification Criteria, Pricing Format.	Quantity column in Pricing Format	Kindly mention the Quantities in the column.	Modified as: Pricing format @ per unit for the applicable zones
Data Acceptance procedure, We request DDA to elaborate on GIS base map acceptance procedure, verification sample size, timeline			As per ToR.
Sub-contracting by LSA			As per ToR.
5. Evaluation and Qualificatio n Criteria, Pricing Format, Pt.	Training and Hand Hold support (batch of 20)	We assume that the Training infrastructure, Hardware, Software, Tea, Lunch etc. shall be provided by DDA Kindly confirm.	Modified as per decision

4			
9. Timelines and Deliverables	Data acquisition through aerial survey/ possible means as mentioned in the RFP -- ED + 3 weeks Submission of final database along with entire data and maps, supported by a detailed report -- ED + 52 weeks	Project timelines and Payment Terms	Modified as: • Time of Completion of Work – 60 weeks • The time taken for taking permissions for drone/UAV survey shall be maximum 3 weeks, after which respective timelines & deliverables shall be applicable.

7. Firm/ Organisation: GIS Consortium India Private Limited

Reference	Content of ToR	Clarification sought	Decision
Introduction	DDA intends to undertake a detailed Aircraft/UAV (Drone) captured LiDAR/Ortho image based GIS mapping of existing land use and building use in the city.	RFP does not specify LiDAR data specifications. Deliverables related to Lidar and Ortho Image should also be specified.	Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)
2. Scope of Work, Component A	Component A- GIS & 3D Based Ortho Model for future feature extraction through High Resolution Satellite Imagery (HRSI)/ Aircraft/Unmanned Arial Vehicle (UAV)(Drone) mapping.	RFP does not specify anything about 3d based Ortho Model . It is requested to specify deliverables related to 3d based Ortho Model.	Modified as: Preparing map equivalent to 1:500 scale with 25 cm contour Interval.
2. Scope of Work, Component A, Pt. 3	Thematic content of the GIS database is described below but not limited to: - Ground water prospect areas - Hazard zones (Flood and earthquake)	RFP does not clarify about sources and specifications of thematic content. Source and technical specifications for thematic content should be specified.	Modified as: The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required) , satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame) Thematic content of the GIS database is described below but not limited to: • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per

			availability) <ul style="list-style-type: none"> • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl
2. Scope of Work, Component A, Pt. 4	The scale of such a map will be 1:500 and resolution 10 cm	We assume that Aerial data (Ortho photo) requirement is 10 cm GSD. Kindly confirm.	As per ToR.
2. Scope of Work, Component A, Pt. 10	All necessary permissions from to fly Aircraft/UAV from DGCA/MoD access to aerial survey including co-ordination with Delhi ATC/NPNT Compliance / Digital Sky of DGCA etc. shall be undertaken by LSA.	Permissions will be taken by LSA but the time lapsed for taking the necessary permissions shall be excluded from project time line duration. Kindly confirm	As per ToR.
4. Documents Comprising the BID, Envelop 1, Pt. 1	DD/Banker's Cheque of Rs. 10,00,000- as BID Fee or MSME exemption (certificate/UAM to be shared)	Kindly check the bid fee amount. We believe that it is a typo error and tender document fee can't be 10 lacs. Kindly clarify	Modified as: Online Submission of Rs. 20,000/- as BID Fee or MSME exemption (certificate/ UAM to be shared)
4. Documents Comprising the BID, Envelop 2, Pt. 4	LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same	In this point, it seems there is a typo error. We understand that you are asking for Minimum geographical area of 500 sq.km., instead of Maximum area. It is also bring to your kind notice that multi-layer GIS Base map can be used for master plan as well as for other analysis also. So we request you to kindly remove word "master Plan" from the requirement and amend the clause as: "LSA should have experience of acquiring and processing of Aerial(Fixed / rotary-wing aircraft / UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of MultiLayer GIS based map from the same"	Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan

<p>4. Documents Comprising the BID, Envelop 2, Pt. 6</p>	<p>The LSA should be in the field of GIS based master planning since past 5 years</p>	<p>This bid involves all activities related to geodetic data acquisition and processing, filed survey and doesn't need any experience related to GIS based Master planning (It may kindly be noted that provided data will be used for master planning of Delhi but you need GIS companies having past experience in GIS data acquisition, processing, field survey and web-based GIS solutions). We request this condition to be replaced with "LSA should be in the field of GIS based base-map preparation, Land-use/Landcover survey in past 5 years". Kindly confirm</p>	<p>Modified as: The LSA should be in the field of GIS based urban projects since past 5 years</p>
<p>4. Documents Comprising the BID, Envelop 2, Pt. 12</p>	<p>LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lacs population for the purpose of AMRUT GIS layers</p>	<p>This condition specifies that 5 lacs properties should have been surveyed by the bidder in last 10 years whereas the same condition doesn't seem to be applicable on bidder who has captured panoramic image in town of 5 lacs population. It would be biased if any bidder is permitted without surveying 5 lacs properties. we request you to amend the clause as: "LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out survey for 5 Lacs properties using panoramic image capture for the purpose of AMRUT GIS layers or for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years"</p>	<p>Modified as: LSA must have surveyed minimum of 1 lakh properties in urban area as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in urban area of 5 lac population for the purpose of AMRUT GIS layers.</p>
<p>4. Documents Comprising the BID, Envelop 2, Pt. 14, 15 & 16</p>	<p>14. LSA should submit UAOP from DGCA if proposed survey is to be undertaken using UAV 15. LSA should have a UAV with DGCA issued UIN and NPNT certificate if proposed survey is to be undertaken using UAV 16. LSA aircraft operator should have NSOP from DGCA for use of aircraft</p>	<p>We understand that if bidder is proposing survey using UAV, then only DGCA certificates mentioned at sl. No. 14 and 15 shall be provided by the bidder and is not applicable for bidder proposing survey through Aircraft and similarly if bidder is proposing survey using Aircraft, then DGCA certificate shall be provided only for point no. 16. Kindly confirm</p>	<p>Modified as: As per DGCA guidelines.</p>

<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 3</p>	<p>LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same >= 500 sq. km to <= 1000 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks</p>	<p>It is also bring to your kind notice that multi-layer GIS Base map can be used for master plan as well as for other analysis also. So we request you to kindly remove word "master Plan" from the requirement and amend the clause as: "LSA should have experience of acquiring and processing of Aerial(Fixed / rotary-wing aircraft / UAV) images establishing Ground control points network using DGPS / ETS covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization / PSU in India for any central / state Government organization of India and preparation of MultiLayer GIS based map from the same"</p>	<p>Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same. >= 500 sq. km to <= 1000 sq. km. = 5 marks >1000 sq. km = 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 4</p>	<p>LSA should have experience of physical survey/land use survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 500 sq. km to <= 1500 sq. km. = 5 marks >=1001 sq. km to <= 1500 sq. km. = 10 marks</p>	<p>We understand that there is no upper limit of area coverage and it will be read as ">=1001 sq. km = 10 marks". Kindly confirm.</p>	<p>Modified as: LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any -central /state Government organization of India. >= 500 sq. km to <= 1000 sq. km. = 5 marks >1000 sq. km = 10 marks</p>
<p>5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 7</p>	<p>LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers >5 lacs <8 lacs - 5 marks >8 lacs - - 10 marks</p>	<p>This condition specifies that 5 lacs properties should have been surveyed by the bidder in last 10 years whereas the same condition doesn't seem to be applicable on bidder who has captured panoramic image in town of 5 lacs population. It would be biased if any bidder is permitted without surveying 5 lacs properties. we request you to amend the clause as: "LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out survey for 5 Lacs properties using panoramic image capture for the purpose of AMRUT GIS layers or for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years"</p>	<p>Modified as: LSA must have surveyed minimum of 1 lac properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers >1 lacs to < 1.6 lacs - 5 marks >= 1.6 lacs - 10 marks</p>

5. Evaluation and Qualification Criteria, Pricing Format, Pt. 1	Aircraft/UAV (Drone) survey mapping & GIS Base Map Updation	Department should take separate pricing for Aircraft / UAV(Drone) survey and Mapping & GIS Base map updation. It is also recommended that department should also take indicative prices for acquisition of HRSI. e.g. 1. Aircraft / UAV (Drone) Survey 2. Mapping & GIS base map updation 3. HRSI with ETS / DGPS / vehicle mounted mobile scanner (these are indicative prices and shall not be considered in financials during evaluation of financial bids).	Modified as: <ul style="list-style-type: none"> • Aircraft survey mapping & GIS Base Map Updation Per sq.km • UAV (Drone) survey mapping & GIS Base Map Updation Per sq.km • Satellite imagery procurement & GIS Base Map Updation Per sq.km
5. Evaluation and Qualification Criteria, Pricing Format, Pt. 4	Training and Hand Hold support (batch of 20)	Kindly provide the duration of training and handhold support	Modified as per decision
9. Timelines and Deliverables, Component A, Pt. 2	Roles and Responsibilities of DDA and LSA & Working on UAV survey plan and get necessary permissions. (ED + 1 week)	Delhi being capital of India, is highly secured and sensitive. With our past experience we can say that it will take around 2-3 months for getting permissions to FLY from MOD. We request project start date to be considered from date of receipt of permissions from DGCA/ MOD/SOI. kindly confirm	As per ToR.
9. Timelines and Deliverables, Component A, Pt. 4	Data acquisition through aerial survey/ possible means as mentioned in the RFP. (ED + 3 weeks)	Delhi being capital of India, is highly secured and sensitive. With our past experience we can say that it will take around 2-3 months for getting permissions to FLY from MOD. We request project start date to be considered from date of receipt of permissions from DGCA/ MOD/SOI. kindly confirm	Modified as: Data acquisition through aerial survey/ possible means as mentioned in the RFP. (ED +8 weeks)

8. Firm/ Organisation: CE Info Systems Pvt. Ltd.

Reference	Content of ToR	Clarification sought	Decision
2. Scope of Work, Component A, Pt. 1	To prepare a GIS ready map for geographic asset identification and mapping with a special emphasis on built profile, existing infrastructure and utilities, as built infrastructure.	What is the expectation from utility mapping. Please clarify if it is expected to do underground or surface surveys or scope is limited to superimposition of existing digital data available with department.	Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)

<p>2. Scope of Work, Component A, Pt. 3</p>	<p>The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, satellite image, field survey inputs, existing land use, proposed land use etc.</p>	<p>We understand latest satellite imagery & scanned cadastral maps will be provided by department.</p>	<p>Modified as: The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required), satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame) Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl
<p>2. Scope of Work, Component A, Pt. 3</p>	<p>Thematic content of the GIS database is described below but not limited to: · Water Supply infrastructure (proposed) · Sewage infrastructure · Solid Waste Management infrastructure.</p>	<p>Please clarify what all attributes needs to be collected from survey for water supply , sewerage and solid waste management infrastructure</p>	<p>Modified as: The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required), satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame) Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl

<p>2. Scope of Work, Component A, Pt. 8.</p>	<p>In addition to the 160 layers mentioned at para 3 above, each built structure/building will be assigned a centroid/point feature and will be marked with a unique reference number (URN) and a digital inventory of buildings will be prepared. The URN will be differentiated on the basis of the existing Planning Zones of DDA. For example, buildings in Planning Zone A will be marked as A-0000001, A-0000002, and so on</p>	<p>We understand that the URN is to be given building structure wise not individual property wise. Please confirm</p>	<p>Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)</p>
<p>2. Scope of Work, Component B, Pt. 2.</p>	<p>The on-ground observation shall include for each built structure/buildings/utilities, the land use survey/predominant use on each floor (in terms of approximate built area), activity type/use premise information, number of floors, ownership information to the extent possible and other site related information required to build an existing land use layer for Delhi. Different land use on each floor/ separate numbering of each unit (e.g. flat number) shall be marked as separate unit.</p>	<ol style="list-style-type: none"> 1. Please clarify if internal measurements have to be taken for each floor or property and for which type of property? 2. We understand each flat or property is to be numbered, please confirm 3. For ownership information, only name of the owner is to be collected or any documentary proof. The information shared by occupant will be considered valid ? In case of documentary proof the occupant may not have owner details. Please suggest 4. Will this needs to be done only for commercial entities excluding residential? 5. In case of residential complexes or buildings what all information is to be captured ? 	<p>As per ToR.</p>
<p>2. Scope of Work, Component B, Pt. 6.</p>	<p>Mobile applications on an appropriate platform shall be developed and utilized for the surveys. All such survey instruments shall be connected to a server to submit data on a real me basis on a cloud server.</p>	<p>Please clarify whether it will be vendor's cloud server or department's. Incase of department, please suggest how quality check of the data captured will be done, will department share the data for further processing to vendor</p>	<p>As per ToR.</p>

2. Scope of Work, Component B, Pt. 12 & 13.	<p>12. Once a survey block has been completed, the same shall be sent to the respective Zonal Officer(s) of DDA for verification. Any changes/anomalies pointed out by the concerned officer will have to be verified and checked on the ground, if required through joint site visits with such DDA officers.</p> <p>13. A survey block will be considered complete only after the concerned Zonal Officer has provided due approval. Anyhow it will not take more than 7 working days.</p>	<p>In benefit of timely completion of project, please specify the verification duration. Is it that both verification and approval will be done & given within 7 days of data submission ? Please clarify</p>	<p>Modified as: The time taken for taking permissions for aircraft/ drone/ UAV survey shall be maximum 3 weeks, after the date of award of contract and its acceptance as mentioned above, after which respective timelines & deliverables shall be applicable.</p>
2. Scope of Work, Component B, Pt. 14.	<p>Web-based application shall be developed for monitoring, updating, change management, administration, viewing the records and GIS layers, query-based reports generations etc. Application shall be developed with public and admin interface with user management option for the department. The Database should follow National Spatial Data Infrastructure (NSDI) open source architecture.</p>	<p>Please detail the scope of web application. Is it limited to viewing, querying and visualizing or editing tools, reporting & feedback modules are also required. Where the application will be hosted? Please specify</p>	<p>Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)</p>
5. Evaluation and Qualification Criteria, Pricing Format.	<p>Door to door field survey---Per Unit* Unit* shall be per point/line/polygon. Separate land use/bifurcation shall be treated as one unit.</p>	<p>Please explain in detail</p>	<p>Modified as: 2a) Residential/ Commercial data 2b) Public utility</p>
4. Documents Comprising the BID, Envelop 2, Pt. 6	<p>The LSA should be in the field of GIS based master planning since past 5 years</p>	<p>We understand that the objective of the project is to Prepare GIS Data for Master Plan, hence we request department to modify this condition to encourage active participation from GIS mapping companies who specializes in GIS data creation. Modified clause as below: "The LSA should be in the field of GIS based data creation or mapping since past 5 years"</p>	<p>Modified as: The LSA should be in the field of GIS based urban projects since past 5 years</p>
4. Documents Comprising the BID, Envelop 2, Pt. 8	<p>Cumulative turnover of the LSA for the last three financial years ending should be equal to or greater than Rs. 5 Crore.</p>	<p>In benefit of such critical project and considering Delhi's extensive geographical area & infrastructure, we suggest department to modify the clause with much higher turnover</p>	<p>As per ToR.</p>

9. Firm/ Organisation: Esri India Technologies Ltd.

Reference	Content of ToR	Clarification sought	Decision
2. Scope of Work, Component B, Pt. 6	Mobile applications on an appropriate platform shall be developed and utilized for the surveys. All such survey instruments shall be connected to a server to submit data on a real time basis on a cloud server	As per the requirement, All information is submitted to a cloud server. Does the scope with respect to web based GIS & mobile system apps to be deployed on cloud environment? Please clarify?	As per ToR.
2. Scope of Work, Component B, Pt. 14.	Web-based application shall be developed for monitoring, updating, change management, administration, viewing the records and GIS layers, query-based reports generations etc. Application shall be developed with public and admin interface with user management option for the department. The Database should follow National Spatial Data Infrastructure (NSDI) open source architecture.	Please provide the technical requirement & Specification for web based GIS solution platform software? Also, Please elaborate the web based GIS application workflows , if any.	Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)
5. Evaluation and Qualification Criteria, Pricing Format, Pt. 3	Evaluation and Qualification Criteria Web based application development with unlimited users and portability with hand held devices	Please define the number of users with their roles and concurrency that would use web & Mobile based GIS application. This will help us to size the Infrastructure (hardware & Software) of web based GIS solution. Unlimited users requirement are vague & can't define proper infrastructure sizing.	As per ToR.
5. Evaluation and Qualification Criteria, Pricing Format, Pt. 3	Same as above	Is procurement of hardware for Web based GIS solution in scope of bidder (on Premises/on cloud)? Please clarify. What are the requirements with respect to data center and disaster recovery?	As per ToR.
4. Documents Comprising the BID, Envelop 1, Pt. 1	DD/Banker's Cheque of Rs. 10,00,000- as BID Fee or MSME exemption (certificate/UAM to be shared)	Could you please confirm that the Bid fee and EMD is 10,00,000 each? or any typo in Bid Fee	Modified as: Online Submission of Rs. 20,000/- as BID Fee or MSME exemption (certificate/ UAM to be shared)

2. Scope of Work, Component B, Pt. 14.	14. Web-based application shall be developed for monitoring, updating, change management, administration, viewing the records and GIS layers, query-based reports generations etc. Application shall be developed with public and admin interface with user management option for the department. The Database should follow National Spatial Data Infrastructure (NSDI) open source architecture.	Could you please confirm that the department has any Existing system, If yes please share the same, If No, how to handle the HW & SW	Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)
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10. Firm/ Organisation: Kambill Systems

Reference	Content of ToR	Clarification sought	Decision
2. Scope of Work, Component A, Pt. 4-7	4. The scale of such a map will be 1:500 and resolution 10cm. 5. The GIS ready map by LSA shall be able to fit into the existing digitized GIS basemap of Delhi (prepared on satellite imagery of June 2018 vintage) at the scale of 1: 4000 and resolution 50 cm as provided by Survey of India (SoI) to DDA. 6. The existing digitized GIS basemap of Delhi by SoI will also include digitized layout plans of various schemes of DDA which are currently being undertaken by RSI. 7. LSA shall ground verify and rectify the existing digitized GIS basemap mentioned at para 5 and 6 above if required as per the aerial survey undertaken through UAV for consistency and homogeneity.	It is mentioned that the scale of the map from survey should be 1:500 with a resolution of 10cm and in the next point, the ToR asked to fit the map into a scale of 1:4000 with a lower resolution as per map by SOI. Also asks t involve layers prepared by RSI. Kindly explain the intention of the same. Also, it says that drone data should be included for added consistency, as we know, major zones in Delhi comes under no fly zone, henceforth, it is not possible to have drone data for the city overall.	As per ToR.
2. Scope of Work, Component A, Pt. 9.	Details of the planning zones are given below for reference. Actual boundaries of zones shall be discussed and finalized with DDA before the start of the database preparation exercise. In case of any ambiguity, nearest physical feature shall be considered as zone boundary w.r.t the approved & existing ZDPs.	zonal boundaries shall be clearly fixed	As per ToR.

2. Scope of Work, Component B, Pt. 2.	The on-ground observation shall include for each built structure/buildings/utilities, the landuse survey/predominant use on each floor (in terms of approximate built area), activity type/use premise information, number of floors, ownership information to the extent possible and other site related information required to build an existing landuse layer for Delhi. Different land use on each floor/ separate numbering of each unit (e.g.flat number)shall be marked as separate unit.	“other necessary information” for landuse planning should be clearly elaborated	Modified as: A master sheet/ template will be provided by DDA. (IIT Roorkee)
2. Scope of Work, Component B, Pt. 12.	Once a survey block has been completed, the same shall be sent to the respective Zonal Officer(s) of DDA for verification. Any changes/anomalies pointed out by the concerned officer will have to be verified and checked on the ground, if required through joint site visits with such DDA officers.	data verification on zonal level shall be made to semi-zonal level like half zone at one, as the density in delhi is very high, so rectifying data at zonal level can be very tedious	As per ToR.
2. Scope of Work, Component B, Pt. 17-18.	17. The LSA will undertake a comparative exercise to identify differences between the existing land-use plan and the proposed gross land-uses as per the respective Zonal Plans. Digitized Zonal Plans will be provided by DDA/NIUA as required for this purpose. This will be submitted to the respective Zonal Officers for verification and finalization. 18. Based on such a comparative analysis the LSA will prepare a detailed report on land and building use in the city along with detailed analytics covering all the major land uses as per MPD.	report creation on existing and proposed landuse difference should not be made a part of this as city planning is altoghther a different process, which requires professionals. A mapping agency might not have forte in city/regional planning.	As per ToR.

11. Firm/ Organisation: Caritas Eco Systems Pvt. Ltd.

Reference	Content of ToR	Clarification sought	Decision
	DDA must ask unit rate for Aerial Survey (Non-Drone), UAV Survey (Drone) and Lidar Survey separately and also for other tasks like mapping and survey as separate line items		As per ToR.
	DDA must tell the approximate number of Buildings and Floors that need to be surveyed. Bidder may be asked to cover +/- 5% of that number in the quoted price. Anything above that must be paid in addition to the quoted price.		As per ToR.

		<p>Since this is voluminous work and the Consultant will be submitting the data in regular interval, it would be required from DDA to check the data back to back the data submission so that the data approval and payment is not delayed.</p>	<p>As per ToR.</p>
		<p>Please elaborate on payment plan.</p>	<p>Modified as per decision</p>
<p>2. Scope of Work, Component A</p>	<p>GIS & 3D Based Ortho Model for future feature extraction through High Resolution Satellite Imagery (HRSI)/ Aircraft/Unmanned Arial Vehicle (UAV)(Drone) mapping.</p>	<p>The scope of work mentions GIS mapping of existing infrastructure and utilities. In our understanding any underground feature is not to be mapped. Please confirm.</p>	<p>Modified as: The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required), satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame) Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl
<p>2. Scope of Work, Component A, Pt. 2</p>	<p>In case Aircraft/UAV image acquisition is not permitted by government, then the base map shall be created using HRSI Images and DGPS/ ETS / vehicle mounted mobile scanners etc.</p>	<p>In case Aircraft/UAV image acquisition is not permitted by government, then the base map shall be created using HRSI Images and DGPS/ ETS / vehicle mounted mobile scanners etc.” Please mention specific requirement. Otherwise a company may quote a lower rate and do not properly pursue Drone flying permission and end us doing the mapping with satellite image only. If you wish to say that in restricted areas satellite images would be used and in other areas Drone need to be used, mention that clearly. Also in that case the scale of mapping need to be relaxed.</p>	<p>As per ToR.</p>

<p>2. Scope of Work, Component A, Pt. 3</p>	<p>Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing and proposed) • Drainage • Surface Water Bodies and canals • Road & Rail (existing and proposed) • Transportation Nodes • Health facility (existing and proposed) • Education facility (existing and proposed) • Water Supply infrastructure (proposed) • Water Supply infrastructure (proposed) • Sewage infrastructure • Solid Waste Management infrastructure • Ground water prospect areas • Hazard zones (Flood and earthquake) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl 	<p>The list of Thematic content mentions Ground water prospect areas, Hazard zones, Proposed land uses and facilities like health and Education etc. What will be the source for such mapping and will DDA provide the inputs?</p>	<p>Modified as: The GIS database is to be prepared with mutually registered layers generated from Aircraft/UAV Imagery/LiDAR data, cadastral maps, (integration not required), satellite image, field survey inputs, existing land use, proposed land use, etc. (if data available within time-frame)</p> <p>Thematic content of the GIS database is described below but not limited to:</p> <ul style="list-style-type: none"> • Parcel boundaries • Land use (existing) • Drainage • Surface Water Bodies and canals • Road & Rail (existing) • Transportation Nodes • Health facility (existing) • Education facility (existing) • Water Supply infrastructure (as per availability) • Sewage infrastructure (as per availability) • Solid Waste Management infrastructure (as per availability) • Ground water prospect areas (as per availability) • Hazard zones (Flood and earthquake) (as per availability) • Administrative boundaries (Municipal corporations/wards etc) • Urban sprawl
<p>2. Scope of Work, Component A, Pt. 10</p>	<p>All necessary permissions from to fly Aircraft/UAV from DGCA/MoD access to aerial survey including co-ordination with Delhi ATC/NPNT Compliance / Digital Sky of DGCA etc. shall be undertaken by LSA.</p>	<p>Because of complicacies associated with Delhi, from DDA we not only expect an initial reference letter to get flying permission, but also time to time pursuance to different Central Govt. departments, if required.</p>	<p>As per ToR.</p>
<p>2. Scope of Work, Component B, Pt. 1</p>	<p>LSA shall undertake extensive field survey/ physical survey to collect attributes for each of the identified built structure/building in respective Planning Zones through a compatible app based technology (android or any at par application) for updation of building records/site information on the common GIS platform. Database structure shall be finalized at the start of the project for uniformity.</p>	<p>“To collect attributes through a compatible app based technology (android or any at par application) for updation of building records/site information on the common GIS platform.” From today’s discussion at pre-bid meeting, it was felt that DDA will provide this Mobile App. Please confirm.</p>	<p>Modified as: A master sheet/ template will be provided by DDA.</p>

<p>2. Scope of Work, Component B, Pt. 1</p>	<p>The on-ground observation shall include for each built structure/buildings/utilities, the landuse survey/predominant use on each floor (in terms of approximate built area), activity type/use premise information, number of floors, ownership information to activity type/use premise information, number of floors, ownership information to the extent possible and other site related information required to build an existing landuse layer for Delhi. Different land use on each floor/ separate numbering of each unit (e.g.flat number)shall be marked as separate unit.</p>	<p>Please clarify what is the use of collection of building or land ownership information in Master Planning exercise. OR DDA wants to collect ownership in case of Public and Semi-Public uses?</p>	<p>As per ToR.</p>
<p>2. Scope of Work, Component B, Pt. 3 Note (c)</p>	<p>Detailed premise-level surveys (including details such as type of activity) shall be conducted for all notified mixed-use streets/commercial streets as per MPD 2021.</p>	<p>We understood that detailed premise and floor level surveys shall be conducted for all notified mixed-use streets/commercial streets as per MPD 2021 and for other areas like residential colony, district centres marking of overarching land use will be sufficient. Please confirm</p>	<p>As per ToR.</p>
<p>4. Documents Comprising the BID, Envelop 2, Pt. 4</p>	<p>LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan layers for the same</p>	<p>“...covering a maximum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU...”. Since the Drone technology is new and very few Indian cities have used this technology for its mapping. Moreover, its no use for DDA if an agency has flown UAV for Agriculture monitoring or forest mapping and not used it for urban studies. Therefore, we request that the area to be reduced substantially from 500 sq. km to 50 sq. km. Also, many Urban Local bodies or Development Corporations have used drone technology for localised studes, therefore we request you to allow such experiences to be counted and remove the clause “from a single project”. Instead of this “Experience Web based application development” which is one of the task should be one of the criteria.</p>	<p>Modified as: LSA should have experience of acquiring and processing of Aerial(Fixed/rotary-wing aircraft/UAV) images establishing Ground control points network using DGPS/ETS covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India and preparation of GIS based map of master plan</p>

4. Documents Comprising the BID, Envelop 2, Pt. 5	LSA should have experience of physical survey/landuse survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India.	“...experience of physical survey/landuse survey/household survey covering a minimum geographical area of 500 sq. km. ...” We request you to reduce the criteria as mentioned in previous point because ideally these two tasks are inter-related.	LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India.
4. Documents Comprising the BID, Envelop 2, Pt. 6	The LSA should be in the field of GIS based master planning since past 5 years	“The LSA should be in the field of GIS based master planning since past 5 years.” Since this is GIS based survey for urban planning, hence request you to rephrase it as “The LSA should be in the field of GIS based survey and Urban planning since past 5 years”.	Modified as: The LSA should be in the field of GIS based urban projects since past 5 years
4. Documents Comprising the BID, Envelop 2, Pt. 12	LSA must have surveyed minimum of 5 lacs properties as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in town of 5 lac population for the purpose of AMRUT GIS layers	LSA must have surveyed minimum of 5 lacs properties as on bidding date. Since this is not a Property Survey project and is a GIS and Land/Building use project, therefore we request you to remove this requirement.	Modified as: LSA must have surveyed minimum of 1 lakh properties in urban area as on bidding date for Central Govt. of India/ any State Govt. Organization/ PSU in India for any central /state Govt. organization of India during the last 10 years Or Carried out panoramic image capture properties in urban area of 5 lac population for the purpose of AMRUT GIS layers.
4. Documents Comprising the BID, Envelop 2, Pt. 13	LSA should have minimum 30 GIS / RS experts on company payroll	Sine the work also involves Development of Web Based Application hence the requirement may be modified from “LSA should have minimum 30 GIS / RS experts on company payroll” to LSA should have minimum 10 GIS / RS experts and 3 Software Developer/MIS experts in company payroll	As per ToR.
4. Documents Comprising the BID, Envelop 2, Pt. 14	LSA should submit UAOP from DGCA if proposed survey is to be undertaken using UAV	UAOP from DGCA is not required for Nano and Micro UAV if flown below 200 feet agl. Hence request you to provide relaxation according to DGCA guideline for Drone survey.	Modified as: As per DGCA guidelines.
5. Evaluation and Qualification Criteria, Marking and Evaluation Criteris, Pt. 1	Evaluation and Qualification Criteria : LSA’s ISO certification ISO 9001:2015 - 2 Marks ISO 27001:2013 –5 marks	About company competency. ISO Certification is not the only Criteria. Please add Govt affiliation and empanelment for survey work also as one of the criteria. Also rectify the marks attached to each of the criteria. ISO 27001:2013 alone should not fetch 5 marks	Modified as: ISO Certification: ISO 9001:2015 & CMMi3- 5 marks ISO 27001:2013 - 5 marks

12. Firm/ Organisation: Applied Geotech solutions

Reference	Content of ToR	Clarification sought	Decision
	Defragmentation of project in 3 parts i.e. Drone/UAV work, GIS mapping including portal application and master planning, as it is very difficult for a single bidder to do all.		As per ToR.
3. Eligibility of LSA, 3.1.1	Consortium Allowed of not more than two partners	Consortium of 3 companies should be included in eligible criteria.	As per ToR.
9. Timelines and Deliverables	Submission of final database along with entire data and maps, supported by a detailed report = ED+52 weeks	Timeline of project should be consider from the date of the permission given by the gorvernment authorities, and should be extended to at least 75-80 weeks.	Modified as: <ul style="list-style-type: none"> • Time of Completion of Work – 60 weeks • The time taken for taking permissions for drone/UAV survey shall be maximum 3 weeks, after which respective timelines & deliverables shall be applicable.
4. Documents Comprising the BID, Envelop 2, Pt. 6	The LSA should be in the field of GIS based master planning since past 5 years	We have work experience of 500+ sq. Km. In Preparation of Existing Land Use Plan but not experience in master planning so can it suffice the master plan eligibility.	Modified as: The LSA should be in the field of GIS based urban projects since past 5 years
5. Evaluation and Qualification Criteria, Marking / Evaluation Criteria, Pt. 4	LSA should have experience of physical survey/land use survey/household survey covering a minimum geographical area of 500 sq. km. in India from a single project for Central Govt. of India/ any State Government Organization/ PSU in India for any central /state Government organization of India. >= 500 sq. km to <= 1500 sq. km. = 5 marks >= 1001 sq. km to <= 1500 sq. km. = 10 marks	Household survey experience should be 1 lakh instead of 5 lakh.	Modified as: LSA should have experience of physical survey/land use survey/household survey in urban area covering a minimum geographical area of 500 -sq. km. in India in cumulative (maximum 7 projects in last 5 yrs.) for Central Govt. of India/ any State Government Organization/ PSU in India for any -central /state Government organization of India. >= 500 sq. km to <= 1000 sq. km. = 5 marks > 1000 sq. km = 10 marks
5. Evaluation and Qualification Criteria, Marking and Evaluation Criteris, Pt. 1	Evaluation and Qualification Criteria : LSA's ISO certification ISO 9001:2015 - 2 Marks ISO 27001:2013 –5 marks	LSA's ISO certification ISO 9001:2015 and CMMi3 - 5 Marks ISO 27001:2013 –5 marks	Modified as: ISO Certification: ISO 9001:2015 & CMMi3- 5 marks ISO 27001:2013 - 5 marks