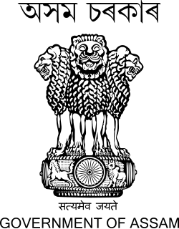
Terms of Reference (ToR)

Software Development, Implementation and Management of UPYOG platform-based Online Building Plan Approval System (OBPAS) for the State of Assam

Department of Housing & Urban Affairs



Assam Urban Infrastructure Development & Finance Corporation Limited (AUIDFCL), Guwahati

# Table of Contents

[1. Project Background 3](#_Toc211622304)

[2. Scope of Services 5](#_Toc211622305)

[3 Duration of the Assignment 10](#_Toc211622306)

[4 Expected Deliverables from the Consultant 10](#_Toc211622307)

[5 Deliverables, Timelines & Payment Terms 13](#_Toc211622308)

[6 Service Level Agreement (SLA) and Penalties 14](#_Toc211622309)

[7 Team Composition 16](#_Toc211622310)

[8 Evaluation Criteria 17](#_Toc211622311)

[Annexure – 1 18](#_Toc211622312)

[Annexure – 2 24](#_Toc211622313)

[Annexure - 3 27](#_Toc211622314)

# Project Background

In line with the Government of Assam’s broader vision for improving urban governance, transparency, and service delivery, the Department of Housing & Urban Affairs (DoHUA), Government of Assam, is committed to foster planned, sustainable and efficient urban growth in Assam. Town and Country Planning, Assam, and Guwahati Metropolitan Development Authority (GMDA) under DoHUA proposes to develop a centralized open source based Online Building Plan Approval System (OBPAS) for the issuance of Planning Permits, Building Permits, TDR and Occupancy Certificates etc., across all Urban Local Bodies (ULBs) and Development Authorities in Assam as per the provisions of the Assam Unified Building Construction (Regulation) Byelaws, 2022.

Currently, the building permission process in most ULBs and Development Authorities involves manual intervention, leading to delays, lack of transparency and procedural inefficiencies. The absence of a unified digital platform also hampers data integration, regulatory compliance monitoring and service delivery effectiveness.

In order to address this issue, Government of Assam has approached NIUA for development of an Online Building Plan Approval System (OBPAS) under NUDM for the State of Assam, including GMDA and Guwahati Municipal Corporation (GMC) to implement the Assam Unified Building Construction (Regulation) Byelaws, 2022. A rule-based Scrutiny Engine and a basic platform under Urban Platform for Delivery of Online Governance (UPYOG) platform is being developed under NUDM which is proposed to be rolled out under OBPAS at the earliest.

The proposed UPYOG Platform based -Online Building Plan Approval System (OBPAS) aims to deliver a streamlined, end-to-end digital platform for processing building and planning permits. The system will ensure that the approval processes are transparent, time-bound and compliant with the applicable building byelaws, master plans, zoning regulations, and development control rules. NUDM is currently providing technical and programmatic support to the State for the implementation and rollout of this system.

OBPAS will also leverage emerging technologies such as GIS integration, automated rule-based scrutiny, online fee payments, document management systems, and dashboard-based monitoring to enable stakeholders, including citizens, architects, engineers, urban planners, and regulatory authorities—to engage efficiently within a digital ecosystem.

This initiative is aligned with the objectives and mandates of various national and state-level urban governance missions, including NUDM, AMRUT, Digital India, Ease of Doing Business, Special Assistance to States for Capital Investment (SASCI), and Compliance Reduction & Deregulation, and seeks to establish a citizen-centric, transparent, and accountable mechanism for building permit issuance. By implementing this system across Assam, GMDA intends to create a scalable and interoperable digital infrastructure that not only accelerates the permit process but also contributes to better urban planning, real-time data analytics, and sustainable development across the state.

Keeping the criticality of the implementation needs, DoHUA now proposes to onboard System Integrator through GMDA from the **empanelled Vendors under NICSI’s open tender no. NICSI/ Consultancy for Digital India /2023/01 for ‘Request for Empanelment of Consulting organization for Digital India Program including India Enterprise Architecture 2.0 (IndEA 2.0) and Strategic Consultancy for Digital India Program’ under Category A** for “Design, Development, Implementation, Maintenance, And Support of Online Building Permit System (OBPAS)for Government of Assam”.

The proposed system shall provide a single-window, GIS-integrated, workflow-based solution that enables online submission, scrutiny, approval, and monitoring of building plan applications — with secure authentication, digital signatures, automated compliance verification, and real-time progress tracking.

## 1.1 Objectives of the Project

The key objectives of this Project are:

* **Digitize the Building and Planning Permit Process**: To digitize the entire lifecycle of building permit processing—from application submission to digitally signed approvals of the building permit. Develop a centralized, user-friendly and secured online system for submission, scrutiny, and approval of planning and building permits and occupancy certificates across all Urban Local Bodies (ULBs), Gram Panchayats, and Development Authorities in Assam.
* **Enhance Transparency and Accountability**: To enhance citizen convenience, system transparency, and operational accountability in the building approval process. Establish a transparent and rule-based approval mechanism that eliminates manual intervention and discretionary practices improving governance.
* **Improve Service Delivery and Efficiency**: To streamline and standardize the permit issuance workflow, thereby reducing approval time, eliminating procedural bottlenecks and enhancing citizen satisfaction.
* **Ensure Compliance with Regulatory Frameworks**: To provide a role-based, configurable, and compliant digital system aligned with guidelines, Model Building Bye-Laws, and local regulations. Enable automatic rule-based scrutiny as per prevailing building byelaws, zoning regulations, master plans, and development control rules applicable in the state.
* **Facilitate Data Integration and Urban Planning**: To create a unified digital database that enables better planning, monitoring, and decision-making by integrating GIS, land use, and building data. Ensure data interoperability, enabling easy integration with State SewaSetu, GIS systems, RERA, eDCR, and external platforms (if any).
* **Support Ease of Doing Business (EoDB)**: To contribute towards the Government of Assam’s efforts in improving the state's EoDB ranking by offering time-bound, online approvals and simplified processes for construction permits.
* **Promote Sustainability and Digital Governance**: To build a resilient, scalable, and interoperable e-governance platform that can support long-term urban development and smart city initiatives.
* **Strengthen capacity building** through user training, manuals, and continuous support to ensure sustainable system operations.

# Scope of Services

The broad scope shall consist of OBPAS solution design, development and implementation across all ULBs of the State, database migration if any, necessary training & change management and operations & maintenance support of the new OBPAS system. The project shall be carried out for 24 months, which includes 12 months of application development, implementation and rollout and 12 months of post implementation maintenance and support.

The services to be provided towards meeting the objectives are below:

## System Study and Design

Study Acts, Regulations, By-laws governing process and modalities of OBPAS, existing online system and other processes and create the AS-IS document

As the proposed OBPAS is being developed under the National Urban Digital Mission (NUDM), the Consultant, in co-ordination with the NUDM development team, shall collaborate closely with them and progressively assume responsibility for the entire process. To ensure smooth and seamless operations, the System Integrator must familiarize themselves with all aspects of the OBPAS development under NUDM and align their implementation approach accordingly. The Consultant shall take into account the details of the Scrutiny Engine, Process Flow etc. developed under NUDM. They will identify the gap if any and work out the further details to make OBPAS fully operational as per requirement of the State Government.

Conduct workshops with relevant users and stakeholders of the systems wherever necessary, to obtain more details on the requirements of the system

Identify the configurations, extensions and integration requirements (GIS application, Sewa Setu, Treasury Applications, Payment & SMS Gateway, etc.) for the implementation purpose. Any changes required in the proposed processes will have to be explicitly discussed and agreed with AUIDFCL and relevant stakeholders

Based on the requirements study, the Consultant shall submit a Software Requirement Specification (SRS) which should be agreed upon with AUIDFCL through a formal sign off. The SRS document shall ideally detail out the following:

* Detailed mapping of the workflows of the processes
* Functional logic for various services delivered functions and support processes
* User groups, roles and types of access needed
* Service access channels- such as portals, Common Service Centres (CSCs), mobile browser, etc.
* System checks requirements
* Master Data requirements
* Reporting requirements
* Security requirements
* Migration requirements, if applicable
* Language and Localization requirements
* Integration requirements with existing systems and any other external agencies
* Any other relevant details which are required to clearly articulate solution requirement

## Solution Development, Configuration and Deployment

Develop & configure the OBPAS application based on open-source technology, leveraging the DIGIT/UPYOG Platform, including integration with GIS data, department functional gaps, and improvement areas

Develop automated validation modules to check compliance with building bylaws, zoning codes, and permissible construction norms

Configure and deploy the solution for delivering all the services and management functions detailed in SRS

Implement process automation to ensure transparency, accountability, and compliance with building regulations and by-laws.

Integrate OBPAS with external systems — including GIS, Revenue, Fire & Emergency Services, Panchayat, RERA, and Water/Sanitation Departments — for real-time inter-departmental coordination.

Enable end-to-end digital processing from online plan submission to occupancy certification, including automated scrutiny, digital signatures, and e-payments

The OBPAS system should have the following functionalities:

* Provision for creating an online Building Planning Approval System from plan submissions to final approvals.
* Provision for automated scrutiny of CAD drawings with rule-based compliance checks.
* Provision for automated plan and document review to ensure compliance with e-DCR.
* Support real-time error detection
* Allow real-time technical clearance/ approval of building plans.
* Generate digitally signed occupancy certificate.
* Generate unique building identification number (UBIN), enabling seamless data sharing across departments like TCP, Panchayat, RERA, fire, water, and others.
* Provision for automated SMS and email alerts to applicants, architects, engineers, and officers to prevent delays and improve service delivery timelines.
* Provision to incorporate geospatial data to allow TCP to verify proposed projects within their actual physical and environmental context, helping to flag illegal encroachment and construction.
* Allow secure online fee payment and receipt generation.
* Support role-based access control for data integrity and accountability.
* Provide Grievance and feedback portal for users and professionals.
* Dashboards and MIS reports for real-time monitoring.

The OBPAS Portal shall be the interface and delivery channel for industry, employees, architects, citizens and other stakeholders to access various services related to OBPAS and building permissions. Users shall have direct access to this portal from their office/homes/other locations.

In order to extend and configure the platform to provide the solutions listed in this ToR, the Consultant must adhere to all applicable guiding principles of Open-Source Application Development.

## Design & Development of Field Inspection Mobile App

The Consultant is expected to design and develop a Field Inspection App for conducting field Inspection by the officials and update the necessary observation. The details of the App are provided below:

|  |  |
| --- | --- |
| **Mobile Application Development** | * Develop a cross-platform mobile application (Android and iOS) for use by ULB field officers. * The app must function in both online and offline modes with data sync when connectivity is restored. |
| **Secure Login & Role-Based Access** | * Secure login for inspectors with role-based access to assigned inspections. * Integration with OBPAS user management system for authentication. |
| **Inspection Assignment & Scheduling** | * Display list of inspections assigned to the logged-in officer. * Allow field officers to accept, reschedule, or update inspection appointments. * Integration with backend workflow for auto-assignment or manual allocation by administrator |
| **Geo-Tagging & Timestamping** | * Capture and store geo-tagged photos and videos of the construction site. * Ensure all media is time-stamped and linked to the inspection ID. |
| **Checklists & Field Forms** | * Provide configurable inspection checklists based on the type of application (residential, commercial, etc.). * Allow officers to record compliance status, add remarks, and mark deficiencies. * Submit inspection report directly from the app to the OBPS backend. |
| **Document Upload** | * Upload supporting documents, site drawings, and additional compliance materials during inspection. |

## Data Migration

The Consultant would be responsible for the data migration of the existing 14000 approx. permissions available in PDF format with the Department. All data to be provided by the department in the digital format for migration.

The Consultant will provide checklists for migrated data to AUIDFCL for verification, including number of records, validations (if applicable) and other controls. AUIDFCL shall verify the migrated data.

Any corrections as identified in the migrated data during Data Quality Assessment and Review shall be addressed by the Consultant at no additional cost to AUIDFCL

## Integration of OBPAS Application with external Systems

The Consultant will be working on integrating many of the services/external systems that need to be integrated with OBPAS. AUIDFCL will facilitate the availability of all APIs from external service providers to carry out the integration activity with the OBPAS Solution by the Consultant. The list of probable integrations is provided below:

|  |  |  |
| --- | --- | --- |
| **Sl. No** | **Integration To be Carrier Out** | |
| **Service Integration** | | **Remarks** |
| 1 | SMS | Before the Go-Live of the solution. SMS gateway to be provided by the Authority. |
| 2 | Email | Before Go-Live of Solution |
| 3 | Payment Gateway | Before the Go-Live of the solution as per Govt. of Assam norms. |
| 4 | Digital Signature (Both DSC and e-Sign) | As per the direction of the Authority. OEM for Digital Signature to be onboarded by the Authority. |
| 5 | Aadhaar Authentication / eKYC | As per the direction of the Authority |
| 6 | Digi Locker | As per the direction of the Authority |
| **NOC Integrations** | | **Remarks** |
| 7 | Fire Dept. | As per the direction of the concerned Authority |
| 8 | National Monument Authority | As per the direction of the concerned Authority |
| 9 | Airport Authority of India | As per the direction of the concerned Authority |
| 10 | Revenue Dept. Portal | As per the direction of AUIDFCL |
| 11 | Property Tax System | As per the direction of AUIDFCL |
| 12 | COA (Council of Architecture) | As per the direction of AUIDFCL |
| 13 | Water Supply Portal | As per the direction of AUIDFCL |
| 14 | RERA | As per the direction of AUIDFCL |
| 15 | IGR Portal | As per the direction of AUIDFCL |
| 16 | GIS Platform | As per the direction of AUIDFCL |
| 17 | Others | As per the direction of the Authority during the implementation phase. |

## Hosting of Solution in State Data Centre

The Solution shall be hosted on State Data Centre of Assam. The hosting infrastructure (development, staging and production) will be arranged by AUIDFCL. The consultant is expected to provide the necessary sizing of the cloud infrastructure as well manage the deployment of the application. The Consultant needs to maintain the developed solution hosted in the SDC infrastructure as per the applicable policy of the Data Center

## Training & Capacity Building

The consultant shall assist AUIDFCL to strengthen capacity building through user training, manuals, and continuous support to ensure sustainable system operations.

Therefore, the consultant shall provide application training to XX users of AUIDFCL and other stakeholders. The objective of the training and capacity building component under the Online Building Permit Solution (OBPS) is to ensure that all stakeholders — including State Level, DA/ULB Level nominated officials and architects are fully equipped to use the OBPS solution.

* The Consultant shall conduct Training Needs Assessment (TNA) in consultation with the department. Develop a detailed Training Calendar covering all regions and stakeholder groups. Prepare customized training content aligned with system workflows and user roles.
* Create key materials like User Manuals, Standard Operating Procedures (SoPs), Online Training Content as required for training the stakeholders.
* Training to be imparted to both officials and Architects for adoptions of the OBPAS solution.
* The Consultant shall conduct training on hybrid mode i.e regional level in person training and virtual training to ensure the users are trained to use the system. AUIDFCL will facilitate the training venue and required infrastructure for conducting physical trainings.
* AUIDFCL will identify the master trainers who need to be trained by the Consultant for effective Implementation of Train the Trainer (ToT) Programme.
* The Consultant shall update the training material as an when changes are incorporated in the system.

## User Acceptance Testing (UAT), Security Audit and Certification

The Consultant must build up an overall plan for testing and acceptance of the system, in which specific methods and steps should be clearly indicated. The acceptance test plan will be agreed and approved by AUIDFCL and will include all the necessary steps to ensure complete functional & operation compliance and performance of the system

Primary goal of Testing & Acceptance would be to ensure that the system meets requirements, standards, specifications and performance prescribed by the ToR

UAT shall be done centrally. It is the Consultant’s responsibility during the tests to evaluate and recommend any further changes to the infrastructure & application. Any recommendations for change will be discussed with AUIDFCL.

AUIDFCL reserves the right to conduct Third Party Audit for functional, performance, security, etc. Cost incurred towards Third Party Audit will be borne by AUIDFCL

Any necessary changes to be incorporated in the application as a result of the Third-Party Audit should be done by the Consultant without any additional cost to AUIDFCL.

## Application Rollout & Go-Live

Consultant shall roll out the application in a phased manner over a period of 12 months, as depicted in the table ‘Deliverable Timelines & Payment Milestone’.

## Post Go-Live Operations & Maintenance Support

The Consultant shall provide operational support and maintenance services for the term of the Project including but not limited to the overall system stabilization, system administration, security administration, database administration and end-user problem resolution

The Consultant will have to ensure that the solution is functioning as intended and attending to all problems associated in operation of the application system.

The Consultant shall provision required team of resources for handling user issues and providing maintenance support during business hours.

## Program Management

The Consultant will undertake a project planning exercise, in respect of the Tasks identified and it shall commence with the start of the project. It should be documented in the Inception Report.

The Consultant shall prepare a detailed project plan and submit the same to AUIDFCL for review and approval.

The Consultant shall also specify the anticipated risks and the mitigation strategies thereof, in project implementation.

The Consultant shall design appropriate mechanism for tracking of the project as per the designed project plan and its management. The Consultant shall address at the minimum the following using Project Planning and Management:

* Create an organized set of activities for the project.
* Construct a project plan schedule including milestones.
* Measure project deadlines and performance objectives.
* Communicate the project plan to stakeholders.

During the project implementation the Consultant shall report to the Nodal Officer, on following items on a weekly basis:

* Results accomplished during the period.
* Cumulative deviations to date from schedule of progress on milestones as specified in this RFP read with the agreed and finalized Project Plan.
* Corrective actions to be taken to return to planned schedule of progress.
* Proposed revision to planned schedule provided such revision is necessitated by reasons beyond the control of the Consultant.
* Other issues and outstanding problems, and actions proposed to be taken.
* Interventions which the Consultant expects to be made by the Nodal Officer and / or actions to be taken by the Nodal Officer before the next reporting period. Progress reports would be prepared by Consultant on a Monthly basis. These reports may be required to be shared with AUIDFCL.
* Scope Management to manage the scope and changes through a formal management and approval process.
* Risk Management to identify and manage the risks that can hinder the project progress.

# Duration of the Assignment

The total duration of the assignment shall be 24 months, comprising:

* 9 months for development, testing, and Go-Live.
* 3 months for post-Go-Live rollout in ULBs & stabilization phase.
* 12 months for post rollout operation & maintenance phase.

# Expected Deliverables from the Consultant

The Consultant shall prepare a detailed document on the implementation of portal application with respect to configuration, customization, extension and integration as per the mentioned modules in the scope. The Consultant shall closely review the existing integrations with the other applications of the department and redesign the integrations.

As part of the System Study, the Consultant shall be responsible for comprehensive System Study based on the legislation, business processes and organization design of the department.

The Consultant shall perform the detailed assessment of the functional requirements and MIS requirements and utilize these inputs to prepare the SRS documents, incorporating list of additional features that shall result in further improvement in the overall application performance for consideration of the department.

## 4.1 Preparation of Software Requirements Specifications (SRS)

As part of the preparation of SRS, the Consultant shall be responsible for preparing and submitting detailed requirement specification documents as per IEEE or equivalent standards which meets all the Business, Functional and Technical requirements of the department. The Consultant shall prepare the SRS documents and have it reviewed and approved by the department.

AUIDFCL will sign off on the SRS documents after satisfying itself with all the requirements of the SRS. The Consultant is required to update the SRS as and when any enhancements/modifications are made to the e‐portal application till the duration of the contract.

## 4.2 Preparation of OBPAS Portal Application Design

Detailed Design documents shall include:

* Technical Architecture Document (Application, Network, and Security)
* The available IT infrastructure available at the department shall be a part of the document.
* High Level and Low-Level Design.
* Database architecture, including defining data structure, data dictionary as per standards.

The Application shall adhere to all functionalities as detailed in this ToR. Further, should comply with all the standards for performance, availability, manageability, security as specified in the ToR.

## 4.3 Requirements Traceability Matrix

The Consultant shall ensure that the developed application is fully compliant with the requirements and specifications provided in the ToR, such as functional, non‐functional and technical requirements. For ensuring this, the Consultant shall prepare a Requirements Traceability Matrix on the basis of Functional Requirements Specifications (FRS), Non-Functional Requirements Specification, and Technical Requirements agreed with by AUIDFCL during system study and design phase.

## 4.4 Project Documentation

The Consultant shall create and maintain all project documents that shall be passed on to the department as deliverables as per the agreed project timelines. The documents created by the Consultant will be reviewed and approved by the department respectively.

Project documents shall include, but not limited to the following:

* Detailed Project Plan in the form of an Inception Report
* List of business processes, Service Definitions for the in-scope modules.
* SRS document
* HLD documents
* Application architecture documents.
* ER diagrams.
* Data dictionary and data definitions.
* Application component design including component deployment views, control flows
* Application flows and logic.
* GUI design (screen design, navigation, etc.).
* All Test Plans
* Requirements Traceability Matrix
* Capacity Building Plan
* Training manuals

The Consultant shall submit a list of deliverables that they would submit based on the methodology they propose. The Consultant shall prepare the formats/templates acceptable to AUIDFCL, for each of the deliverables upfront based upon industry standards and the same will be approved by AUIDFCL prior to its use for deliverables.

All project documents are to be kept up to date during the course of the project. The Consultant shall maintain a log of the internal review of all the deliverables submitted.

## 4.5 High Level Design (HLD)

Once the SRS is approved, the Consultant shall complete the High-Level Design document of the new system where all functionalities, integrations with existing application and external application are covered. The Consultant shall prepare the HLD and have it reviewed and approved by AUIDFCL.

## 4.6 Test Plan

Once the SRS is approved and design is started, the Consultant shall prepare all necessary Test Plans (including test cases), i.e., plans for Acceptance Testing. Test cases for Initial and Final User Acceptance Testing shall be developed in collaboration with domain experts identified at the department. Initial and Final User Acceptance Testing shall involve Test Case development, Unit Testing, Integration and System Testing, Functional testing of Application, Performance testing of the Application including measurement of all Service Levels as mentioned in this ToR. The Consultant will submit the test plans and test result reports to the department for comprehensive verification and approval.

## 4.7 UAT, Go‐Live Report

The Consultant will assist in successful completion of User Acceptance Testing (UAT) and on the completion of the roll out of newly developed application, will submit a Go‐Live Report.

## 4.8 Operational Support Services post Go-Live

The Consultant is expected to provide technical and operational support after the system goes live. The Consultant is required to provide resource persons as per requirement of the project. Project Manager shall be the single point of contact for AUIDFCL for the implementation of the project. The other staff shall function based on the scope of work of the ToR.

## 4.9 Monthly Progress Reports

The consultant, in addition to the deliverables and reports listed above, shall submit Monthly Progress Reports to the Nodal Officer of AUIDFCL starting from the date of commencement of the assignment till the date of completion.

# Deliverables, Timelines & Payment Terms

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Deliverable** | **Description** | **Timeline** | **Payment %** |
| 1 | Inception Report | Detailing project plan, resource deployment, and methodology | T1 = T + 15 days | 10% |
| 2 | AS-IS / TO-BE Study Report | Process mapping, functional gap assessment | T2 = T1 + 45 days | 5% |
| 3 | SRS & System Design Documents | Detailed SRS | T3 = T1 + 2.5 months | 10% |
| 4 | Development & Testing | Enhanced OBPAS modules, integration, and UAT readiness | T4= T3 + 3 months | 20% |
| 5 | UAT Completion & Go-Live Readiness | UAT sign-off, and Go-Live Configuration in Pilot ULBs  (Pilot ULBs will be finalised during the inception phase) | T5 = T4 + 2 months | 10% |
| 6 | Go-Live in Pilot ULBs | Detailed Go-Live Report | T6 = T5 + 1 month | 5% |
| 7 | Training & Rollout in rest of ULBs | Training and Rollout Report | T7 = T6 + 3 months | 20% |
| 8 | Post-Go-Live Support | Maintenance and performance monitoring | T8 = T7 + 12 months | 20%  (5% in each Quarter, Total 4 Quarters) |

# Service Level Agreement (SLA) and Penalties

| **Support Category** | **Criteria** | **Maximum Response Time** | **Maximum Resolution time** | **Penalty** | |
| --- | --- | --- | --- | --- | --- |
| Critical | The system cannot be used for normal business activities. | 30 Minutes | 4 Hour | Response Time > 30 Minutes OR Resolution Time > 4 Hour | **Response time:** 0.1% of the monthly invoice value for every 30 minutes of delay beyond the timelines.  **Resolution time:** 0.5% of the monthly invoice value for every 1 hour of delay beyond the timelines. |
| High | There is a problem with a part of the system, which impacts Client’s decision making. No viable workaround is available. There is a likelihood of financial loss | 60 Minutes | 8 Hours | Response Time > 60 Minutes OR Resolution Time > 8 Hour | **Response time:** 0.1% of the monthly invoice value for every 60 minutes of delay beyond the timelines.  **Resolution time:** 0.5% of the monthly invoice value for every 2 hours of delay beyond the timelines. |
| Medium | The efficiency of users is being impacted but has a viable workaround. | 2 Hour | 24 Hours | Response Time > 2 Hour OR Resolution Time > 24 Hours | **Response time:** 0.05% of the monthly invoice value for every 4 hours of delay beyond the timelines.  **Resolution time:** 0.25% of the monthly invoice value for every 12 hours of delay beyond the timelines. |
| Low | A fault, which has no particular impact on  processing of normal business activities. | 4 Hour | 72 Hours | Response Time > 4 Hour OR Resolution Time > 72 hours | **Response time:** 0.05% of the monthly invoice value for every 8 hours of delay beyond the timelines.  **Resolution time:** 0.25% of the monthly invoice value for every 24 hours of |

Penalties shall not be levied on the successful Consultant in the event of force Majeure affecting the SLA which is beyond the control of the successful Consultant.

**Maximum Penalty**: The Maximum penalty shall not exceed 10% of the order value in the contract.

# Team Composition

This proposed team structure aims to ensure seamless coordination, speedy roll out and efficient implementation. It's important to note that roles and responsibilities may be further defined based on the specific requirements and priorities of the Department in future. Wherever required the resources deployed may be increased or decreased as per the project requirement.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No** | **Resource Type** | **9 Months** | **3 months** | **12 months** |
| 1 | Project Manager – (>10 years) | 1 | 0.5 | 1 |
| 2 | Functional /Business Architect (Domain Specialist) (> 3 years & < 5 Years) | 1 | 1 | 0.5 |
| 3 | Lead Developers - Backend (Java Spring Boot) (> 6 years & < 10 Years) | 1 | 1 | 1 |
| 4 | Lead Developers - Frontend (ReactJS/Angular) (> 6 years & < 10 Years) | 1 | 1 | - |
| 5 | Sr. Software Developers -Backend (> 3 years & < 6 Years) | 3 | 1 | 1 |
| 6 | Sr. Software Developers -Frontend (> 3 years & < 6 Years) | 3 | 1 | 2 |
| 7 | Sr. Software Developers -Tester (> 3 years & < 6 Years) | 1 | .05 | 1 |
| 8 | Sr. Software DevOps | 1 | 1 | 0.5 |
| 9 | Training cum Rollout Expert | 0 | 4 | 0 |
| **Total** | | **12** | **11** | **7** |

# Evaluation Criteria

**Technical Presentation & Demonstration of following Modules**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Activity** | **Max Marks** |
| 1 | OBPAS Demo leveraging DIGIT/UPYOG Platform | 20 Marks |
| 2 | Demo on GIS Integration with DIGIT/UPYOG Platform | 15 marks |
| 3 | Demo of the other 10 Services on DIGIT/UPYOG Platform | 15 marks |
| 4 | Technical Presentation   * + Similar Implementation Experience – 5 marks   + Understanding of the scope – 10 marks   + Approach & Methodology – 25 marks   + Work Plan – 10 marks | 50 marks |

# Annexure – 1

**Functionalities & Requirements for OBPAS Application**

These functionalities would have to be revalidated and revised during the requirement gathering and study phase. The revalidated and revised requirements would be incorporated into the SRS document which would be finalized and signed off by AUIDFCL.

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Functionality / Requirement** | **Description** |
| 1 | **Architect/Technical person Registration/ Renewal** | This module should enable Architects / Engineers / Structural Engineers / Group or Agencies/ Town Planners etc. to register Online. Provision to migrate already registered Technical Person details in the system with status and validity of registration. Provision to renew the registration   * Provide a single interface for the registration of all architects (across state), who intend to do transaction with the ULBs /Das * Identify the applicant with reference to a unique ID. Capture the following minimum information of the applicant with appropriate validations.  1. Unique ID 2. Name 3. Address 4. Corporate Information 5. Certificate from Council of Architecture/ Other authorities 6. Educational Qualification  * This module will also consist of the following: -  1. Facility for uploading attachments as required by Authority for establishing identity and experience etc. 2. Enable online submission of registration fee. 3. Assigning a unique application number to each applicant. 4. Enable tracking the status of the application.  * Enable the Competent Authority to approve/reject the applications for registration; based on a workflow system and business rules. Communication of successful registration/ rejection to the applicant through an e-mail alert & SMS * Enable the Competent Authority to renew the applications for registration according to workflow/business rules. Communication of successful renewal will be sent to the applicant through an e-mail alert & SMS. * Enable authorized officials to search the database for listed architects based on the ‘search’ criteria such as - line of business, turnover, past experience or as decided by authority. * Provide an online handbook and user manual for registration. Provide FAQs on the registration process. ULB officials will provide help desk assistance for resolving architects’ queries on registration process. |
| 2 | **Auto Scrutiny of Drawing** | * The Module should enable the Architect/Engineer to submit the Drawing in Drawing Interchange Format (DXF) format from any Open-Source CAD tools of their choice. * System should enable the Architect/Engineer to submit the Application for various Services along with required supporting documents. * The Auto Scrutiny of the drawing should enable the following  1. The scrutiny process is online real time and the Architect/Engineer will get the detailed Scrutiny report within minutes of submitting the Plan. 2. Scrutiny reports will list the Byelaws and sub-clauses with the approved values against the extracted values. 3. Based on the extracted value range validation will be done by the system. 4. Only on clearance of all the Rules Scrutinized the Report will reflect ACCEPTED. 5. On Accepted Report a unique number of the Scrutiny will be generated |
| 3 | **Submission of Application** | * System should allow submission of the Application for following Services.  1. New Construction Permit 2. Revision of Permit 3. Addition & Alteration Permit 4. Issuance of Occupancy Certificate  * The entire process from the time of submission of drawing to scrutiny completion is automatic without any human intervention and instantaneous.  1. If the Scrutiny report REJECT, the drawing the Report will have the details of the clauses in which it was rejected and the values of the parameters. 2. The Registered Technical Person (RTP) can correct the drawing and can resubmit the drawing till he/she gets the approval. 3. Only on approval will the unique reference number for the Scrutiny Report be generated. 4. Only with this number the Submission of Application can be initiated.  * The OBPS shall handle Plan Scrutiny in Online Real time mode. * From the Plan submitted by the Architect the System should generate all the relevant plan in PDF format automatically. These are the set of Plans which will be issued to the end user with certification on successful completion of the Application Process. * The Application can be filled and required documents can be uploaded by the Architect once he has the Plan Scrutiny Reference number. * On Submission the Citizen need to validate and self-certify the Application. |
| 4 | **Application Process by the Department** | * System should be able to configure various workflows as per the requirements of the Assam Unified Building Construction (Regulation) Byelaw, 2022 (as amended). * The system should be capable of providing Digitally signed/ QR Code enabled Permits post approval from competent authority. * The system should be capable of integrating with the GIS database of the State of Assam for identifying the development control regulations in the particular plot for development * The application process shall capture all relevant details for all internal and external agencies; relevant data needs to be forwarded to corresponding agencies for issuing NOCs. * In addition, a single window mechanism is also built into the system for issuance of NOC. This feature can be used by Departments which do not have the IT system for their process in full. * Provision for entering onsite inspection details and geo-tagged images (document upload facility) of the Site Inspection. * The solution should have a well-defined inspection report format at various levels to guide the inspectors, which is also configurable. * The system should enable the staff and the management to view the completed and pending tasks / works / applications. * System should provide Security on User Authentication with Role based access * The system shall enable well defined service levels and the escalation matrix to officials regarding time limit for processing an application automatically in the system. * Stage wise SMS/Email Alerts shall be enabled for enabled in the system for each stages. * The solution shall provision to incorporate the changes of building by-laws as intimated by the department in the application within the time frame. * Solution shall have the feature to capture the history of changes and based on the original application submission date the relevant rules will be considered for scrutiny. * The Product has the feature of provisioning Show Cause Notice, Revoking/Cancelling of Building Permission. |
| 5 | **Auto-fee Calculation and Payment** | * The solution shall be integrated with the payment gateway for Online Payments and facilitate for Fee collection, Fee calculation, refund calculation and generate online fee receipts based on the submitted Building plan. * Fees should be computed automatically by the system using the Plan Parameters and the applicable laws and rules of the State which are configurable. * Citizen/RTP can pay the Fees Online * Upon payment of Fees Plan Permit Approval process will be initiated and approved with Digital Signature. * The Fees can be collected under various heads of accounts and the Reports for the collections against the Heads of Accounts will be generated. This will enable the user to account for the collections accordingly. * The system shall allow Fee payment in instalments as per applicable bye law provisions. |
| 6 | **Occupancy Certificate** | * Enable applicants to apply online for Occupancy Certificates after construction completion. Auto-fetch approved building plan data from the Building Permit module. * The system shall allow the upload of mandatory documents (e.g., completion certificate, photos, NOCs). * Enable automated validation vis a vis permit letter and check for compliance with local building byelaws and development control regulations. * Allow ULB officials to schedule site inspections. Mobile interface for inspectors to capture geo-tagged photos, status updates, and remarks during field visits. Record and track inspection reports. * Should Provide Configurable, role-based workflow for scrutiny and multi-department approvals. * Enable comments, reverts, and digital approvals at each stage. * Auto-generate Occupancy Certificate upon final approval. Certificate to be digitally signed and downloadable by the applicant. * Link with utility service departments (e.g., water, electricity) for post-OC service initiation. * Integration with property tax systems for automatic property status updates. |
| 7 | **MIS & Dashboard** | * The system shall generate various MIS reports as per the requirements of the Departments from time to time. MIS reports based on the payment received, dues position, plans passed, pending proposals, delayed approvals be generated as per Department requirement. * Generate configurable reports in multiple formats (Excel, PDF, CSV). * Flag delays or SLA breaches automatically. Notify responsible officers for pending or overdue actions. * Develop interactive dashboards for ULB officials, department heads, and state-level authorities. Display real-time metrics such as application status, timelines, and performance indicators. |

Below is the list of other critical functionalities which need to be considered while designing & developing the OBPAS Application:

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| **Feature** | **Description** |
| **Similar Floor Plans** | Allows Architects / users ease of drawing for submitting the application with similar floors where users don’t need to repeat drawing for similar floors. |
| **Drawing Rework** | Enables applicants to revise and resubmit drawings post-scrutiny. Facilitates efficient correction and approval. |
| **Road Widening Provision** | Integrates road widening norms into the plan checking process. Automatically adjusts setbacks for affected properties. |
| **TDR Provision** | Allows usage of Transfer of Development Rights (TDR) in proposals. Automatically calculates additional permissible FSI. |
| **Mixed-Use Projects** | Supports applications combining multiple land uses like residential and commercial. Validates zoning and usage regulations. |
| **Instalment Provision** | Enables fee payments in multiple instalments. Reduces the upfront financial burden for large projects. |
| **Offline NOC Provision** | Supports manual upload of NOCs where digital integration is not available. Facilitates hybrid NOC submission. |
| **Provision to Add ‘Other Fee Details’** | Let officials add custom or additional fee types. Ensures complete and accurate financial records. |
| **Demand Notice** | Automatically generates payment notices for pending fees. Notifies applicants of due amounts and timelines. |
| **Application Page Print and Download** | Enables printing or downloading the application for offline use. Assists in record-keeping and reference. |
| **Workflow History Print and Download** | Provides a printable/downloadable log of all application activities. Enhance transparency and tracking. |
| **Permit Letter Preview** | Allow previewing the permit letter before final approval. Ensures correctness and minimizes errors. |
| **Show-cause Notice** | Facilitates issuing notices seeking clarification from applicants. Promotes compliance and fairness. |
| **Revocation of Building Permit** | Enables officials to revoke issued permits in case of violations. Ensures enforcement of regulations. |
| **SLA based Auto-Escalation** | Escalates pending applications to higher levels after defined time. Ensure timely processing and accountability. |
| **Additional Document Upload at Approver Side After Approval** | Allows approvers to upload necessary documents post-approval. Supports additional documentation requirements. |
| **Notice Board – OBPAS** | Displays public notices and building approval updates. Improves transparency and citizen engagement. |
| **Delete Draft/Unused Applications at Citizen Level** | Let users remove incomplete or unused drafts. Keeps the system clean and reduces clutter. |
| **Scrutiny Restriction Based on Technical Person Type** | Controls scrutiny actions based on the role/type of reviewer. Ensure qualified personnel handle relevant tasks. |
| **Planning Assistant Checklist** | Provides standard checklist for Planning Assistants during scrutiny. Ensures consistency and thorough review. |
| **DXF to PDF Conversion Automatically** | Automatically Convert DXF files to PDF on the fly for signing of the building plan. |
| **Application Pull Back Provision** | Allow officials to pull back application pending for clarification after expiry of the clarification date. |
| **Refusal Show Cause Notice** | Issues notice seeking explanation before rejection. Ensure applicants get a fair opportunity to respond. |

# Annexure – 2

**Information Security Requirements**

Security of Application and the data contained therein is paramount for the success of this Project. Hence, the Consultant should take adequate security measures to ensure confidentiality, integrity and availability of the information.

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| **Security Requirements** | |
| **Overall Solution** | |
| 1. | The proposed solution should ensure proper logical access security of all the information Assets |
| 2. | The proposed solution should be able to classify information assets according to criticality of the information asset. |
| 3. | The proposed solution should provide security including identification, authentication, authorization, access control, administration and audit and support for industry standard protocols |
| 4. | The proposed solution should have a security architecture which adheres to the security standards and guidelines such as   * ISO 27001 * Information security standards framework and guidelines standards under e-Governance standards (<http://egovstandards.gov.in>) * Information security guidelines as published by Data Security Council of India (DSCI) * Guidelines for Web Server Security, Security IIS 6.00 Webserver, Auditing and Logging as recommended by CERT‐In (www.cert‐[in.org.in](http://in.org.in)) * System shall comply with IT (Amendment) Act 2008. |
| 5. | The proposed solution should support the below Integration security standards:   * Authentication * Authorization * Encryption * Secure Conversation |

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| **Security Requirements** | |
| 6. | The proposed solution should have multi‐layered detailed security system covering the overall solution needs having the following features:   1. Two factor authentications for all administrators i.e. system administrators, network administrators, database administrators. 2. Audit Log Analysis   Consultant must ensure that the security solution provided must integrate with the overall system architecture proposed |
| 7. | The proposed solution should be monitored by periodic information security audits /assessments performed by or on behalf of the department. The scope of these audits / assessments may include, but are not limited to, a review of access and authorization procedures, physical security controls, backup and recovery procedures, and program change controls.  To the extent that the department deems it necessary to carry out a program of inspection and audit / assessment to safeguard against threats and hazards to the confidentiality, integrity, and availability of data, the Consultant shall provide the department’s representatives’ access to its facilities, installations, technical resources, operations, documentation, records, databases and personnel. The Consultant must provide department access to various monitoring and performance measurement systems (both manual and automated). The department has the right to get the monitoring and performance measurement systems (both manual and automated) audited / assessed without prior approval / notice to the consultant |
| 8. | The proposed solution should facilitate system audit for all the information assets to establish detective controls. The Consultant is required to facilitate this by producing and maintaining system audit logs for a period agreed to with department. |
| 9. | The proposed solution should ensure that data, especially those to pertaining to registration process, transaction process as well as the data that is stored at various points is appropriately secured as per minimum standard 128 Bit AES/3DES encryption. |
| 10. | The proposed solution should provide database security mechanism at core level of the database, so that the options and additions to the database confirm the security policy of the department without changing the application code. |
| 11. | The proposed solution should support native optional database level encryption on the table columns, table spaces or backups. |
| 12. | The database of the proposed solution should provide option for secured data storage for historic data changes for compliance and tracking the changes. |
| 13. | The proposed solution should be able to ensure the integrity of the system from accidental or malicious damage to data |
| 14. | The proposed solution should be able to check the authenticity of the data entering the system |
| 15. | The proposed solution should be able to generate a report on all “Authorization Failure” messages per user ID |
| 16. | Retention periods, archival policies and read‐only restrictions must be strictly enforceable on all logs maintained in the system |
| 17. | The proposed solution should provide ability to monitor, proactively identify and shutdown the different types of incidents through different modes of communication (email, SMS, phone call, dashboard etc.) |
| 18. | The proposed solution should be able to monitor security and intrusions into the system and take necessary preventive and corrective actions. |
| 19. | The proposed solution should have the option to be configured to generate audit‐trails in and detailed auditing reports |
| 20. | The proposed solution must provide ACL objects and a security model that can be configured for enforcement of user rights |
| 21. | The proposed solution should be designed to provide for a well‐designed security of physical and digital assets, data and network security, backup and recovery |
| 22. | The proposed solution should have tamper proof data storage to prevent unauthorized data tampering |
| 23. | The proposed solution should have a Business Continuity Plan prepared and implemented by the Consultant before commencement of the operations. Robust backup procedures to be established for the same. |

# Annexure - 3

**Recommended Architectural Principle:**

AUIDFCL wants to implement an application based on the scope mentioned in the scope of service, which shall follow the below mentioned architectural principal. The objective is to enhance the existing applications to make them scalable and provide seamless user experience with enhanced administration capabilities.

The Application would be built on following principles:

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| **S. No.** | **Principle** | **Details** |
| 1. | Mobile First | The Application would be built on a responsive Mobile First Approach where the Application can be seamlessly used from both Mobile and Web browser. |
| 2. | Enhanced User Outreach | The proposed system should be able to provide its users the option of availing all the core services from the comfort of their home with an easy-to-use user interface. It is expected that the application to be developed will be more efficient as well as reduce manual operations. |
| 3. | Process Improvement | The service delivery processes shall be liable to discussion and deliberation with AUIDFCL during its implementation so as to make the solution more efficient. |
| 4. | Micro-service based and containerized | The proposed application shall possibly be built on a Micro-service based containerized platform making it vendor neutral and technology neutral. |
| 5. | Portability | The application should be neutral to hosting environment. It should have the capability to be seamlessly hosted on MeitY approved Cloud Environment or State Data Center. |
| 6. | Scalability | The application should be highly scalable to cater to the growing need of AUIDFCL. |
| 7. | High Availability | The Application needs to be designed with an automatic fail-over capability for most of functionalities or processes. Recovery of failed services should ensure that the application withstands failure of individual components. |
| 8. | Security | The solution shall have appropriate application and infrastructure level security to comply with industry standard security at the minimum. |
| 9 | Database | The proposed database should be spatial enabled |