

**QUOTATION DOCUMENT
FOR
TOPOGRAPHICAL SURVEY OF JORHAT ENGINEERING COLLEGE CAMPUS
USING DGPS**

Date : 22-05-2026

1. NOTICE INVITING QUOTATION

Jorhat Engineering College (JEC), Jorhat, Assam, invites sealed quotations from reputed survey agencies/consultants having experience in DGPS-based topographical surveys for conducting a detailed topographical survey of approximately 100 acres of the college campus. The work includes establishment of DGPS control points, detailed ground survey, preparation of contour maps, and submission of digital survey drawings and reports.

Last date of quotation submission : 06-06-2026 , 11 AM

Particulars	Description
Name of Work	Topographical Survey of JEC Campus using DGPS
Approximate Area	100 Acres

2. OBJECTIVE OF THE SURVEY

The objective of the survey is to generate an accurate digital topographical database of the campus for future planning, infrastructure development, drainage planning, utility mapping, landscaping, and master plan preparation.

3. SCOPE OF WORK

The consultant shall carry out a comprehensive DGPS-based topographical survey covering the entire campus area.

3.1 Establishment of Survey Control

- Establish permanent DGPS control stations.
- Fix horizontal and vertical benchmarks.
- Coordinate system referenced to WGS-84 / UTM or approved coordinate system.
- Transfer levels through DGPS and Total Station observations.

3.2 Topographical Survey

The survey shall capture:

Existing Structures

- Academic buildings
- Administrative buildings
- Hostels
- Residential quarters
- Workshops
- Utility buildings
- Boundary walls and gates

Transportation Infrastructure

- Internal roads

- Parking areas
- Culverts
- Junctions

Drainage Features

- Open drains
- Covered drains (if any)
- Storm water channels
- Culverts
- Natural water courses

Natural Features

- Individual trees (diameter > 300 mm)
- Water bodies
- Ponds
- Low-lying areas
- Natural depressions

Utility Features

- Electric poles
- Transformers
- Street lights
- Water tanks
- Bore wells

Boundary Features

- Campus boundary
- Fencing
- Property corners

4. CONTOUR SURVEY REQUIREMENTS

The consultant shall carry out detailed level observations for preparation of contour maps.

Contour Interval

- Major Contour: 1.0 m
- Minor Contour: 0.5 m

(Adjustable based on terrain conditions and approval of Engineer-in-Charge)

Deliverables

- Digital Terrain Model (DTM)
- Contour Maps
- Spot Levels

5. DELIVERABLES

The consultant shall submit the following:

Hard Copy Deliverables

Survey Report

- Methodology adopted
- Equipment used
- Accuracy achieved

- Coordinate system details
- Benchmark details

Maps

- Campus Topographical Map
- Contour Map
- Existing Utility Map
- Road and Drainage Map

Five (05) printed copies.

Soft Copy Deliverables

Drawings

- AutoCAD (*.dwg)
- DXF format
- PDF format

GIS Data

- Shape files (*.shp)
- Geodatabase

Terrain Models

- DTM
- TIN
- Contour Surface

6. SURVEY REPORT CONTENTS

The final report shall contain:

1. Executive Summary
2. Introduction
3. Survey Objectives
4. Survey Methodology
5. DGPS Control Network
6. Benchmark Information
7. Data Collection Procedure
8. Existing Structures Inventory
9. Road Network Details
10. Drainage Network Details
11. Tree Inventory and Natural Features
12. Terrain Analysis
13. Contour Analysis
14. Conclusions and Recommendations

7. ACCEPTANCE CRITERIA

The survey shall be accepted after:

- Verification of DGPS control points.
- Random field checks.
- Validation of contour accuracy.
- Approval of final maps and reports.

8. SPECIAL CONDITIONS

- All field data shall remain property of JEC.
- Re-survey due to inaccuracies shall be carried out at no additional cost.
- Consultant shall maintain safety and security norms during field operations.
- All survey monuments shall be properly referenced and documented.

ANNEXURE-I

List of Drawings to be Submitted

1. Overall Campus Topographical Map
2. Existing Building Layout Map
3. Road Network Map
4. Drainage Network Map
5. Utility Map
6. Tree Inventory Map
7. Contour Map (0.5 m Interval)
8. Digital Terrain Model
9. Benchmark Location Plan



Principal

Jorhat Engineering College

Jorhat, Assam

JORHAT ENGINEERING COLLEGE

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