

D.G.P.S. SURVEY REPORT

**OF
GOVT. FOREST LAND DEMARCATION AND BOUNDARY
POINT FIXATION
FOR POLY TECHNIC COLLEGE BUILDING CONSTRUCTION IN
NATHIYA NAWAGAON VILLAGE,
UNDER FOREST DIVISION/RANGE – KANKER/KANKER
DISTRICT – KANKER
SURVEYED AREA – 4.309 HECTARE**

(SUBMITTED UNDER FOREST CONSERVATION ACT 1980)



APPLICANT

**PRINCIPAL
GOVERNMENT POLYTECHNIC
COLLEGE, KANKER
DISTRICT- KANKER, CHHATTISHGARH
PIN -494334**

SURVEYED BY

**ARROW ENGINEERS
B-6 GANESH ENCALAVE
NEAR PETROL PUMP
KONI BILASPUR (C.G.)
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CERTIFICATE

ARROW ENGINEERS. BILASPUR, (C.G.)

*This is to certify that the D.G.P.S Surveyed of the area proposed for Govt. poly technique college building construction in Nathiya Nawagaon over an area of 4.309 hect. forest Compartment no. OA346 of Kanker forest division in District – Kanker Ordered by the **Principal Government polytechnic College Kanker**, division kanker, (C.G.)*

The work done is as follow:

1. Create One Base point.
2. Survey of 28 boundary Pillars by using DGPS and fixed upits Ground positionand preparation of Geo-referenced forest map.
- 3.The Geo-referenced forest map prepared using DGPS and superimposed vectorised SOI Toposheet map.
4. Prepared DGPS survey report and soft copy of all above maps in standard Formatand digitizedmaps in shape file and .KML for imported in any GIS database.

Date : /02/2017

Place : Bilaspur

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1.

INTRODUCTION

Principal, Government Polytechnic College, Kanker District -Kanker, Chhattishgarh have been submitted proposal to Forest department Govt. of Chhattisgarh for diversion of Forest Land for the construction of Govt. Polytechnic college building in Nathiya Nawagaon village, under forest conservation Act 1980. The forest area proposed to be diverted for non – forestry purpose is 4.309hect. and situated at village Nathiya Nawagaon, Forest Compartment no. OA 346 under forest division/range– Kanker /Kanker, district Kanker.

Ministry of Environment and Forest, Govt. of India vide their circular no. 11-9/98-FC dated 08/07/2011 have stipulated that to ensure accurate delineation of forest area proposed to be diverted for non – forestry purposed under Section -2 of forest conservation Act 1980 the diversion proposal under forest conservation act shall be accompanied by DGPS surveyed maps of the forest land proposed for diversion.

The **DGPS Survey** work of the area proposed to be diverted have been done by **Arrow Engineers Bilaspur**, as par the guidelines of forest conservation Act 1980. DGPS survey have been completed successfully from dated 03/11/15 to 05/11/15 in the presence of forest department officials.

2.

LOCATION OF THE AREA

The DGPS surveyed Govt. forest land proposed to be diverted for non forestry purpose is situated near village Nathiya Nawagaon, at a distance about 10.5 Km. NW Direction from District Headquarter Kanker (C.G.). It falls in Survey of India Toposheet no. – 64 H/7. The surveyed area is bounded by Longitudes $81^{\circ} 27' 13.69766''\text{E}$ to $81^{\circ} 27' 19.70267''\text{E}$ & Latitudes $20^{\circ} 20' 21.91560''\text{N}$ to $20^{\circ} 20' 35.60721''\text{N}$.

The part of surveyed area comes under Govt. forest land, Compartment no.– OA346 under forest division/range– Kanker /Kanker, district Kanker. The total DGPS surveyed area proposed to be diverted for non – forestry purpose is 4.309hect.

3.

LAND CLALLSIFICATION

S. NO.	VILLAGE/ BLOCK	TYPE OF LAND	FOREST DIVISION/RANGE /VILLAGE	FOREST COMPARTMENT NO. / KHASRA NO.	SURVEYED AREA (IN HECT.)
1.	Nathiya Nawagaon	Govt. Forest Land (OA)	Kanker/ Kanker	OA 346	4.309
TOTAL				1	4.309

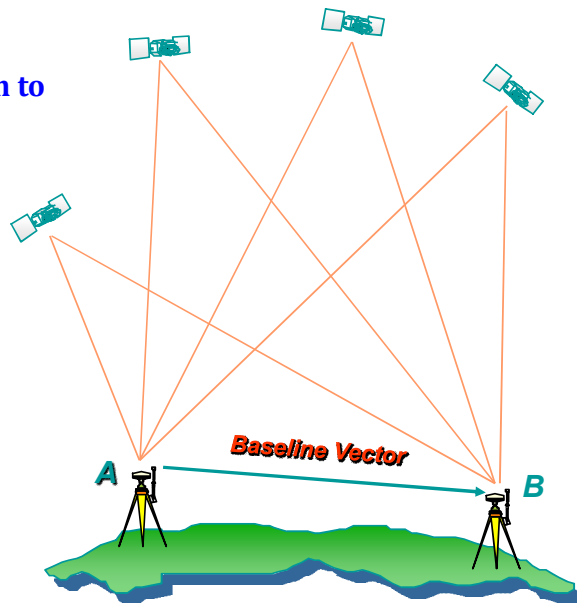
4.

FEATURES & METHODOLOGY OF DGPS SURVEY

Differential Global Positioning System (DGPS) is an enhancement to Global Positioning System that uses a network of fixed, ground-based reference stations to broadcast the difference between the positions indicated by the satellite systems and the known fixed positions. These stations broadcast the difference between the measured satellite pseudoranges and actual (internally computed) pseudoranges, and receiver stations may correct their pseudoranges by the same amount.

Differential Positioning

- It is possible to determine the position of Rover 'B' in relation to Reference 'A' provided
 - The coordinates of the Reference Station (A) are known
 - Satellites are tracked simultaneously
- Differential Positioning
 - eliminates errors in the sat. and receiver clocks
 - minimizes atmospheric delays
 - Accuracy 0.5 cm - 5 m



The survey work has done with the help of **Differential Global Positioning System survey**. Starting DGPS Survey by making Two permanent reference point

(Base Stations) by setting up, initialization of all the parameters of BASE Unit. One BASE point has been established.

Then Initialization of the ROVER Unit in the same manner. and each boundary pillars was established and fixed after 15 Minutes of reading on static mode and that's how 28 boundary points.

After the successful completion of the survey, All the RAW data collected from the field will be post process in the GNSS software, than Validation of the collected data by several methods & Geo-referencing of Cadastral map/Forest Compartment maps using software. Superimposition of output files on Geo-referenced Vectorized Cadastral map/Forest Compartment maps, SOI Toposheets.

**CO-ORDINATES OF THE FIXED BOUNDARY POINT BY DGPS
SURVEY FOR THE GOVT. POLYTECHNIC COLLEGE AT VILLAGE
NATHIYA NAWAGAON, DISTRICT KARKER**

POINT NAME	LONGITUDE	LATITUDE	ELEVATION
BF00	81° 27' 13.75223"E	20° 20' 30.91643"N	330
k1	81° 27' 13.76941"E	20° 20' 31.79276"N	330
k2	81° 27' 15.01357"E	20° 20' 26.63198"N	330
k3	81° 27' 15.54121"E	20° 20' 24.34565"N	329
k4	81° 27' 14.95206"E	20° 20' 25.55293"N	328
k5	81° 27' 14.48056"E	20° 20' 26.70777"N	326
k6	81° 27' 14.17411"E	20° 20' 27.93380"N	327
k7	81° 27' 13.97788"E	20° 20' 28.84022"N	327
k8	81° 27' 13.83905"E	20° 20' 29.47430"N	327
k9	81° 27' 13.73288"E	20° 20' 30.48318"N	328
k10	81° 27' 13.88298"E	20° 20' 33.66353"N	327
k11	81° 27' 13.69766"E	20° 20' 35.60721"N	328
k12	81° 27' 15.21012"E	20° 20' 35.13543"N	330
k13	81° 27' 16.95286"E	20° 20' 34.64395"N	330
k14	81° 27' 17.99102"E	20° 20' 33.30027"N	331
k15	81° 27' 18.78341"E	20° 20' 32.28754"N	329
k16	81° 27' 19.16834"E	20° 20' 30.76326"N	328
k17	81° 27' 19.70267"E	20° 20' 28.97346"N	328
k18	81° 27' 17.49735"E	20° 20' 28.63298"N	328
k19	81° 27' 14.55807"E	20° 20' 27.89901"N	330
k20	81° 27' 15.36902"E	20° 20' 25.66610"N	331
k21	81° 27' 17.35526"E	20° 20' 26.12488"N	330
k22	81° 27' 19.38957"E	20° 20' 26.56862"N	331

**CO-ORDINATES OF THE FIXED BOUNDARY POINT BY DGPS
SURVEY FOR THE GOVT. POLYTECHNIC COLLEGE AT VILLAGE
NATHIYA NAWAGAON, DISTRICT KARKER**

k23	81° 27' 19.69920"E	20° 20' 26.55964"N	330
k24	81° 27' 20.23280"E	20° 20' 23.56675"N	331
k25	81° 27' 18.89281"E	20° 20' 22.95242"N	329
k26	81° 27' 16.88763"E	20° 20' 21.91560"N	330
k27	81° 27' 16.31523"E	20° 20' 22.57082"N	331
k28	81° 27' 15.97324"E	20° 20' 23.30161"N	331



BOUNDARY POINTS



BOUNDARY POINTS



BOUNDARY POINTS



BOUNDARY POINTS



BOUNDARY POINTS



BOUNDARY POINTS



BOUNDARY POINTS