

D.G.P.S. SURVEY REPORT

AREA DEMARCATION AND BOUNDARY FIXATION OF FOREST
LAND COVERED IN CHOWKI-CHILHATI-KORCHATOLA-MH BORDER ROAD

FOREST COMPARTMENT NO. – PF-716,PF-720,PF-731

FOREST DIVISION – RAJNANDGAON, RANGE – AMBAGARH CHOWKI

DISTRICT – RAJNANDGAON (C.G.)



APPLICANT

MANAGING DIRECTOR
CHHATTISGARH ROAD DEVELOPMENT CORPORATION Ltd.
RAIPUR.(C.G.)

CERTIFICATE

This is to certify that the work of D.G.P.S. Survey of the area proposed for Chowki-Chilhathi-Korchatola-MH Border Road construction in Rajnandgaon over an area of 5.577 Hectare. , forest compartment no. PF-716,PF-720,PF-731 of Rajnandgaon forest division in District - Rajnandgaon. Ordered dy The Office of the Managing Director, CGRDC, Raipur (C.G.) .

The D.G.P.S. Survey work done by -----

The work done is as followed:-

As per the work order the Co-ordinates of Boundary pillars & Surveyed area are corrected and we have successfully completed the work, which is correct in our knowledge.

Date :- 15/02/2017

Place :- Rajnandgaon (C.G.)



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INTRODUCTION

Office of the Managing Director, CGRDC Raipur (C.G.) is the nodal agency for construction of **Chowki-Chilhathi-Korchatola-MH Border (Pkg-4)** in **Dist-Rajnandgaon** over an area of **5.577 Hectare**, in **forest compartment no. PF-716,PF-720,PF-731** of **Rajnandgaon forest division** in , District- **Rajnandgaon**. D.G.P.S. survey work has been done by -----, to obtain forest clearance . The D.G.P.S. survey was done successfully and accurately from **11/02/2017** to **13/02/2017** in the presence of CGRDC and FOREST Dept. officials.



LOCATION OF THE AREA

The surveyed area is situated in approximate 50 Km. NW direction from Rajnandgaon district (C.G.). It falls in Survey of India Toposheet No. F44U9. The surveyed area is bounded by SOI Co-ordinates 80°30' East, 21°00' North to 80°45' East, 21°00' North & 80°30' East, 20°45' North to 80°45' East, 20°45' North of Toposheet.

The survey area comes under Govt. Forest land, compartment no.

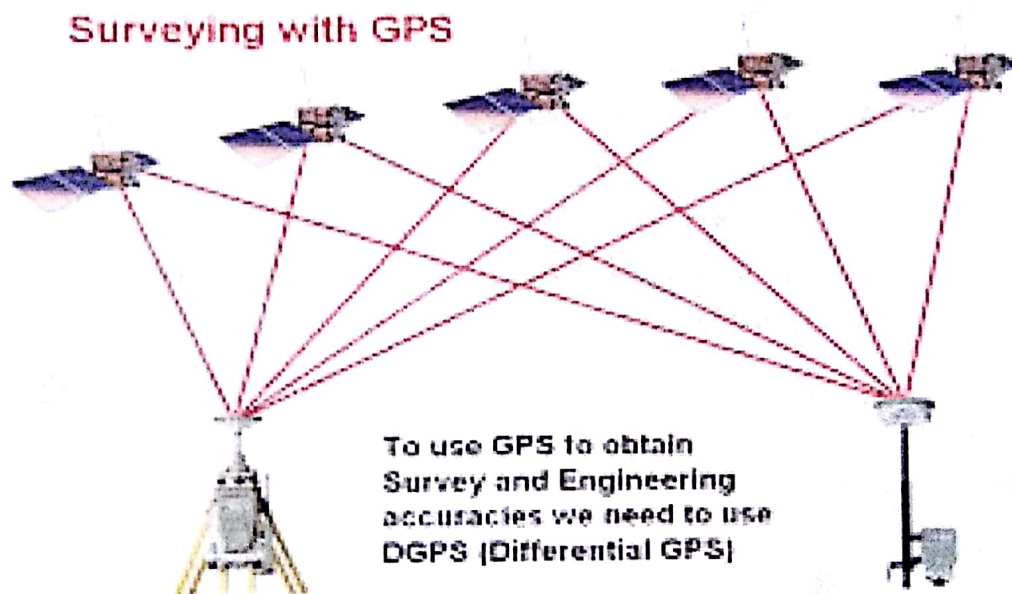
PF-716, PF-720, PF-731 of forest division Rajnandgaon, District- Rajnandgaon in Chhattisgarh. The total surveyed area 5.577 Hectare. The surveyed area is on Chowki-Chilhati-Korchatola-MH Border road.



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 station to broadcast the difference between the position indicated by the satellite system and the known fixed positions. These positions broadcast the difference between the measured satellite pseudo ranges and actual (internally computed) pseudo ranges and receiver station may correct their pseudo ranges by the same amount.

Differential Positioning



The survey work has done by -----, Starting DGPS Survey by making one permanent reference point (Base Station) by setting up, initialization of all the parameters of BASE Unit for minimum 2 Hrs reading.

That Initialization of the ROVER Unit in the same manner and each boundary pillars was established and fixer after 15 minutes of reading and that's how 81 boundary pillars and it has been fixed. After the successful completion of the survey, all the RAW data collected from the field, post process in the GNSS software, then Validation of the collected data by several methods & Geo referenced Vectorized forest maps, SOI Toposheets and Satellite Imageries.

WHAT IS DGPS AND WHY USE IT?

Differential Global Positioning System (DGPS) is an enhancement to Global Positioning System that provides improved location accuracy, from the 15-meter nominal GPS accuracy to about 10 cm in case of the best implementations.

DGPS refers to using a combination of receivers and satellites to reduce /eliminate common receiver based and satellite based errors reduce orbit errors reduce ionospheric and tropospheric errors reduce effects of SA eliminate satellite and receiver clock errors.

Improve accuracy significantly 100's of meters to meters to centimeters to Millimeters.

1. DGPS uses one or several (network) fixed ground based reference stations (in known locations).
2. The base station compares its own known location, to that computed from a GPS receiver.



3. Any difference is then broadcast as a correction to the user.

Correction signals can be broadcast either from ground stations, or via additional satellites. These services are privately owned and usually require a user subscription.

Examples:-

- Satellite Based Augmentation System (SBAS),
- Wide Area Augmentation System (WAAS),
- Local Area Augmentation System (LAAS),
- European Geostationary Navigation Overlay Service (EGNOS),
- Omni STAR
- Coast guard beacon service.



LIST OF MAPS

S.No.	PARTICULARS	MAP NO.
1	GEO- REFERENCED SOI TOPOSHEET WITH FIXED BOUNDARY POINTS	1
2	GEO- REFERENCED MAP OF GOOGLE EARTH	2
3	SURVEYED AREA SUPER IMPOSED ON FOREST COMPARTMENT MAP	3



SUMMARY

ROAD NAME—CHOWKI-CHILHATI-KORCHTOLA-UP TO MH BORDER

DISTRICT—RAJNANDGAON

FOREST DIVISION—RAJNANDGAON

RANGE—AMBAGRH CHOWKI

VILLAGE	COMP. No.	AREA
BHARSENA	PF-716	.968 He
KOLIYATOLA	PF-720	.231 He
CHILHATI	PF-731	.295 He
		.416 He
JHITIYA	REVENUE FOREST	3.667 He

AFFECTED ROAD AREA IN FOREST – 5.577 HECTARE (Incl.Existing Road)

EXISTING ROAD AREA – 12.216 HECTARE

EXISTING ROAD LENGTH – 22.212 Km

EXISTING ROAD LENGTH IN FOREST- 1.429 Km

EXISTING ROAD WIDTH – 5.50 Mtr with paved Shoulder (3.50 Mtr BT)

PROPOSED ROAD ROW – 14 Mtr.



DATA SHEET

CHOWKI - CHILHATI - KORCHATOLA ROAD						
SL No.	CODE	EASTING	NORTHING	ZONE	LONGITUDE	LATITUDE
1	P1	469085.613	2298463.798	44	80° 42' 10.6758" E	20° 47' 8.6694" N
2	P2	469041.536	2298474.603	44	80° 42' 9.1505" E	20° 47' 9.0182" N
3	P3	469037.989	2298460.911	44	80° 42' 9.0287" E	20° 47' 8.5727" N
4	P4	468942.036	2298492.647	44	80° 42' 5.7077" E	20° 47' 9.5992" N
5	P5	468938.994	2298478.982	44	80° 42' 5.6033" E	20° 47' 9.1545" N
6	P6	468879.971	2298494.354	44	80° 42' 3.5608" E	20° 47' 9.6510" N
7	P7	468881.504	2298480.438	44	80° 42' 3.6147" E	20° 47' 9.1984" N
8	P8	468752.413	2298476.15	44	80° 41' 59.1498" E	20° 47' 9.0512" N
9	P9	468754.86	2298462.366	44	80° 41' 59.2353" E	20° 47' 8.6029" N
10	P10	468667.372	2298458.185	44	80° 41' 56.2094" E	20° 47' 8.4616" N
11	P11	468672.609	2298445.201	44	80° 41' 56.3914" E	20° 47' 8.0396" N
12	P12	468577.926	2298425.813	44	80° 41' 53.1176" E	20° 47' 7.4032" N
13	P13	468585.43	2298413.994	44	80° 41' 53.3779" E	20° 47' 7.0192" N
14	P15	468409.45	2298332.996	44	80° 41' 47.2962" E	20° 47' 4.3737" N
15	P14	468382.924	2298335.479	44	80° 41' 46.3785" E	20° 47' 4.4528" N
16	P16	466004.576	2297908.066	44	80° 40' 24.1433" E	20° 46' 50.3986" N
17	P17	465996.506	2297896.626	44	80° 40' 23.8650" E	20° 46' 50.0260" N
18	P18	465915.603	2297952.568	44	80° 40' 21.0628" E	20° 46' 51.8404" N
19	P19	465906.912	2297941.592	44	80° 40' 20.7629" E	20° 46' 51.4828" N
20	P21	465859.007	2297957.974	44	80° 40' 19.1048" E	20° 46' 52.0125" N
21	P20	465838.053	2297975.201	44	80° 40' 18.3788" E	20° 46' 52.5715" N



22	P22	460947.777	2298214.121	44	80° 37' 29.2134" E	20° 46' 59.9967" N
23	P23	460943.459	2298200.804	44	80° 37' 29.0651" E	20° 46' 59.5632" N
24	P24	460887.504	2298232.571	44	80° 37' 27.1271" E	20° 47' 0.5923" N
25	P25	460881.762	2298219.802	44	80° 37' 26.9295" E	20° 47' 0.1765" N
26	P26	460753.301	2298293.969	44	80° 37' 22.4802" E	20° 47' 2.5793" N
27	P27	460747.082	2298281.426	44	80° 37' 22.2661" E	20° 47' 2.1708" N
28	P28	460599.496	2298364.853	44	80° 37' 17.1546" E	20° 47' 4.8733" N
29	P29	460572.399	2298361.241	44	80° 37' 16.2176" E	20° 47' 4.7538" N
30	P30	460322.565	2298483.96	44	80° 37' 7.5661" E	20° 47' 8.7265" N
31	P31	460307.422	2298474.967	44	80° 37' 7.0430" E	20° 47' 8.4328" N



VILLAGE LIST

1. Bharsena
2. Koliyatola
3. Chilhati
4. JHITIYA

