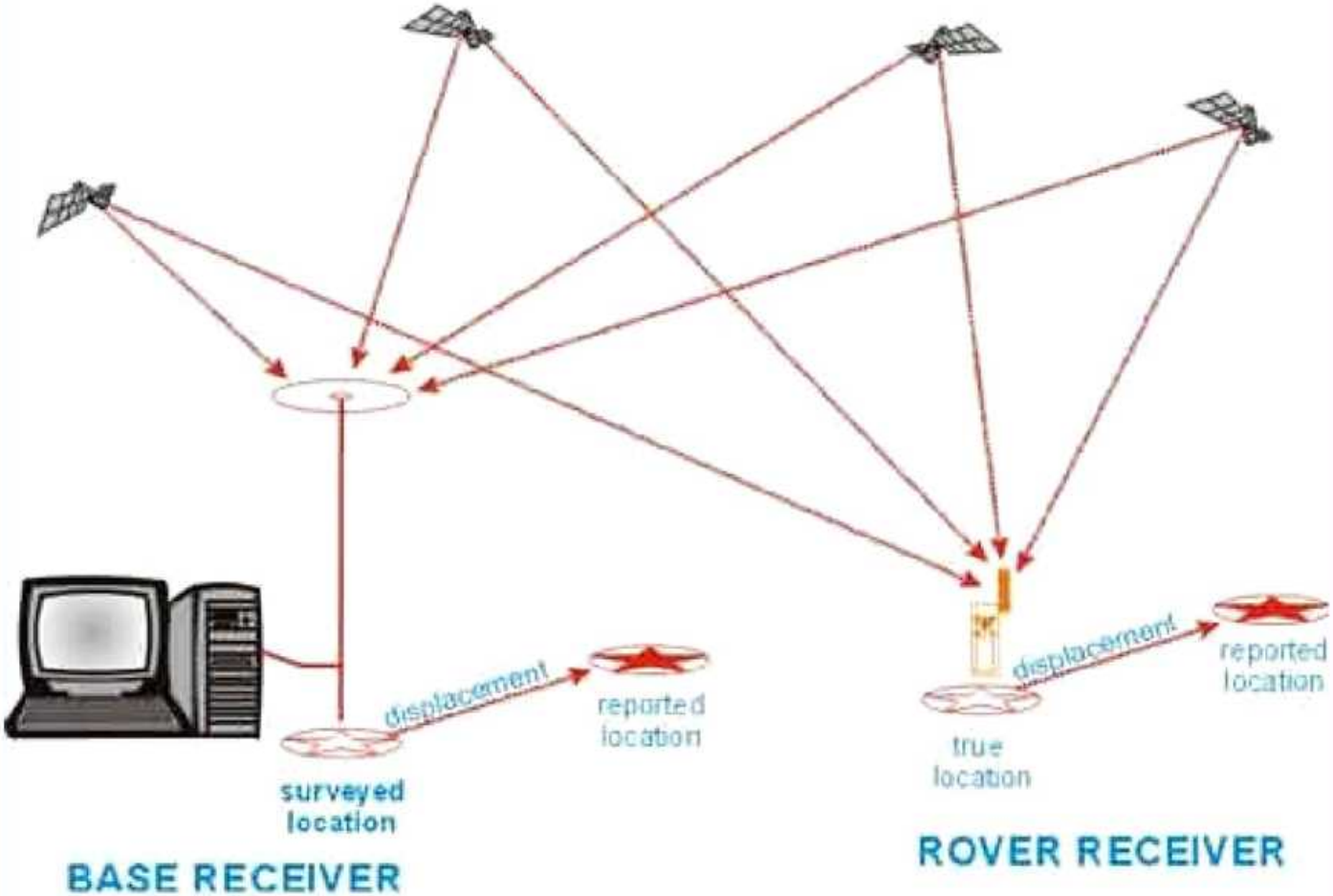
D.G.P.S. SURVEY REPORT OF

KONDAGAON BY PASS

FOREST DIVISION SOUTH KONDAGAON
DISTRICT KONDAGAON
CHHATTISGARH



Name of the Applicant:

Executive Engineer,
Public Work Department (B&R)
Kondagaon Division,
District Kondagaon,
Chhattisgarh.

Divisional Forest Officer
South Kondagaon Divisinal
Kondagaon

COMPUTER SEAL RAIPUR

INDEX

MAPS ON A3 SIZE PRINTOUT

DATA ENCLOSED IN SOFT COPY

1. ABOUT US

Computer Plus an **ISO 9001:2008 certified** organization working in the field of I.T. Consulting & Software Services. We are registered organization under **Directorate of Geology and Mining, Chhattisgarh**. We are serving since 1998 & head office in Raipur, (C.G.), with core competence in the areas of Integrated Business Solutions with Implementation and Support.

Our Team:

We're justifiably proud of the team we've assembled. Initially numbering just two programmers, **Computer Plus** has grown steadily and now has over 250 staff members. The **Computer Plus** team is made up of highly-qualified, talented and innovative IT and GIS professionals each with their own area of expertise. Their experience spans the full range of custom software development, from small entrepreneurial projects to complex systems for major corporations.

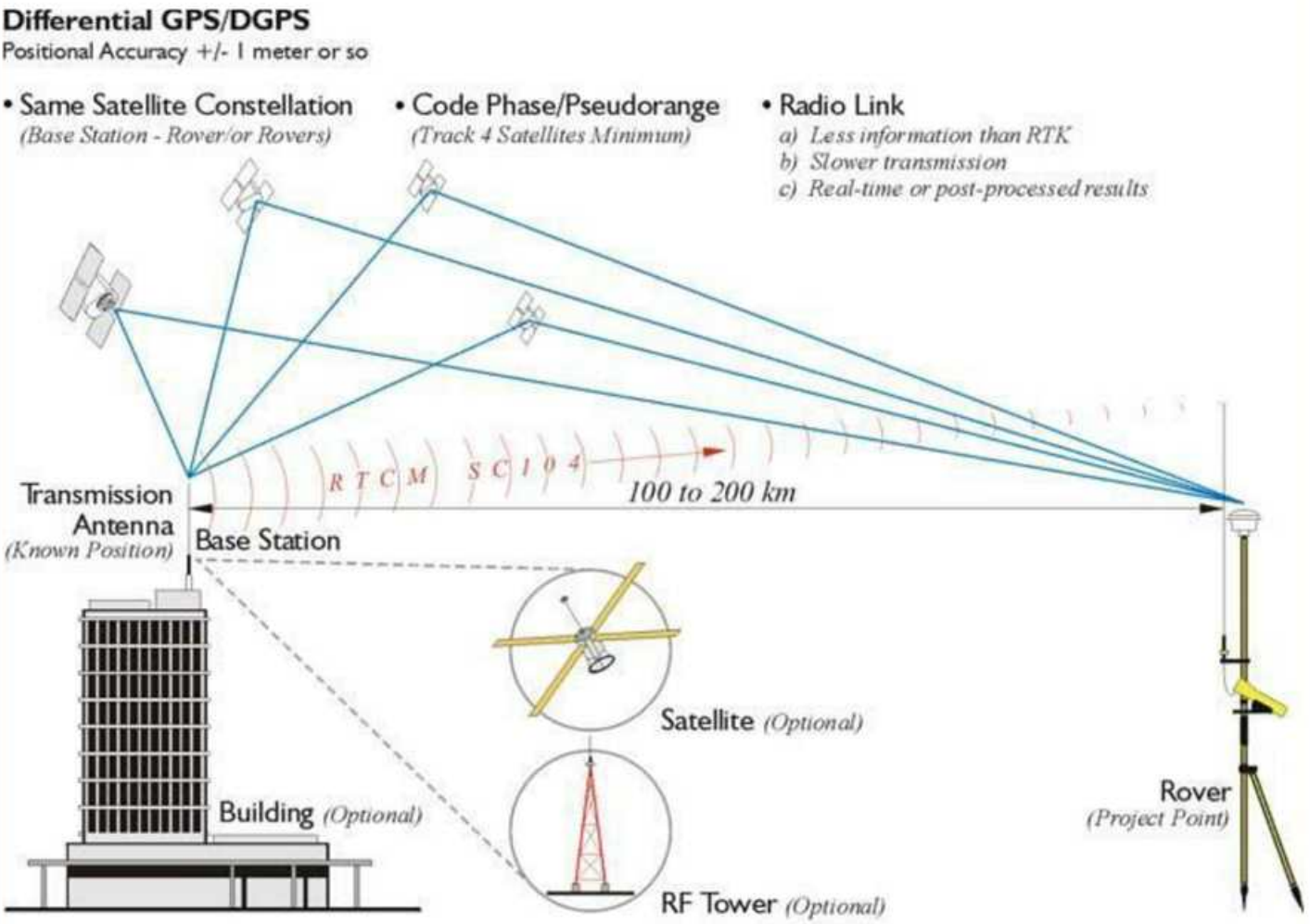
Our Mission:

Computer Plus's mission is to solve challenging technical problems in partnership with our clients.
How we achieve it:

- We understand the business needs of our clients, and how technology can be a tool to make modern businesses more profitable for both private and government sector.
- **Computer Plus** combines technical excellence with great customer service and value for money.
- We value creativity and collaboration; ideas are shared and everybody contributes on an individual basis toward the common goal.

We create new teams for each project, ensuring the best possible combination of skills and experience to meet the client's needs and deliver high quality solutions.

2. INTRODUCTION TO DGPS



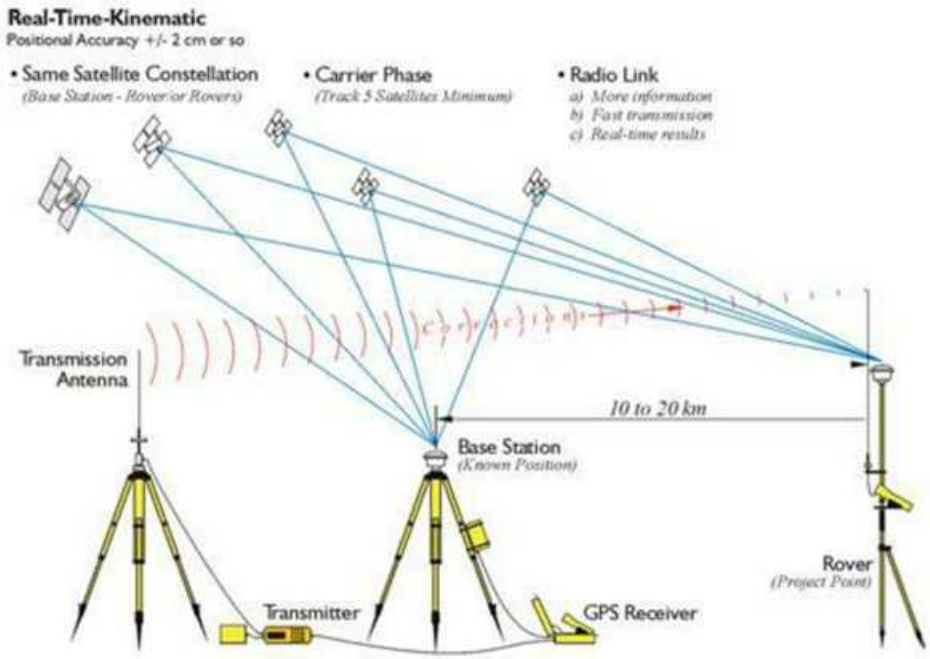
The term DGPS is sometimes used to refer to differential GPS that is based on pseudo ranges, aka code phase. Even though the accuracy of code phase applications was given a boost with the elimination of Selective Availability (SA) in May 2000 consistent accuracy better than the 2-5 meter range still requires reduction of the effect of correlated ephemeris and atmospheric errors by differential corrections. Though the corrections could be applied in post processing services that supply these corrections, most often operate in real-time. In such an operation pseudo range based versions can offer meter- or even sub meter results.

Usually, pseudo range corrections are broadcast from the base to the rover or rovers for each satellite in the visible constellation. Rovers with an appropriate input/output (I/O) port can receive the correction signal and calculate coordinates. The real-time signal comes to the receiver over a data link. It can originate at a project specific base station or it can come to the user through a service of which there are various categories. Some are open to all users and some are by subscription only. Coverage depends on the spacing of the beacons, aka transmitting base stations, their power, interference, and so forth. Some systems require two-way, some one-way, communication with the base stations. Radio systems, geostationary satellites, low-earth-orbiting.

SURVEY METHOD

1 RTK (Real Time Kinematic)
2 STATIC METHOD

1 Real-time Kinematic



Most, not all, GPS surveying relies on the idea of differential positioning. The mode of a base or reference receiver at a known location logging data at the same time as a receiver at an unknown location together provide the fundamental information for the determination of accurate coordinates. While this basic approach remains today, the majority of GPS surveying is not done in the static post processed mode. Post processing is most often applied to control work. Now, the most commonly used methods utilize receivers on reference stations that provide correction signals to the end user via a data link sometimes over the Internet, radio signal, or cell phone and often in real-time.

In this category of GPS surveying work there is sometimes a distinction made between code- based and carrier based solutions. In fact, most systems use a combination of code and carrier measurements so the distinction is more a matter of emphasis rather than an absolute difference. Well that's a bit of discussion about static surveying, but as you know, a good deal of GPS these days is done not static. Much work is now done with DGPS or real-time kinematic, RTK.

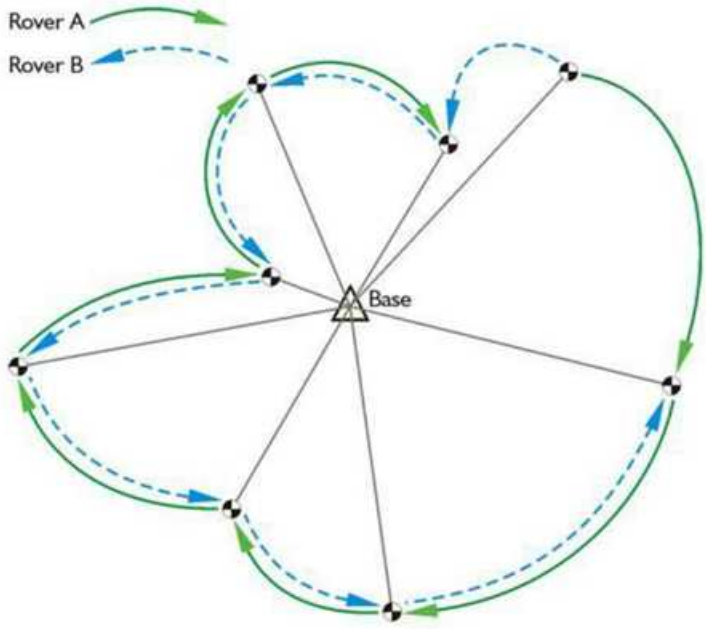
Errors in satellite clocks, imperfect orbits, the trip through the layers of the atmosphere, and many other sources contribute inaccuracies to GPS signals by the time they reach a receiver.

These errors are variable, so the best to way to correct them is to monitor them as they happen. A good way to do this is to set up a GPS receiver on a

station whose position is known exactly, a base station. This base station receiver's computer can calculate its position from satellite data, compare that position with its actual known position, and find the difference. The resulting error corrections can be communicated from the base to the rover. It works well, but the errors are constantly changing so a base station has to monitor them all the time, at least all the time the rover receiver or receivers are working. While this is happening the rovers move from place to place collecting the points whose positions you want to know relative to the base station, which is the real objective after all. Then all you have to do is get those base station corrections and the rover's data together somehow. That combination can be done over a data link in real-time, or applied later in post processing.

Real-time positioning is built on the foundation of the idea that, with the important exceptions of multipath and receiver noise, GPS error sources are correlated. In other words, the closer the rover is to the base the more the errors at the ends of the baseline match. The shorter the baseline, the more the errors are correlated. The longer the baseline, the less the errors are correlated.

The base station is at a known point, whether it was on a building permanently or it's a tripod mounted base station. The fact that it is in a known position allows the base station to produce corrections. The constellation is telling the base station that it is in a slightly different place, so corrections can be created to sent to the rover at the unknown point. The corrections are applied in real time.



RADIAL GPS

Such real-time surveying is essentially radial. There are advantages to the approach. The advantage is a large number of positions can be established in a short amount of time with little or no planning. The disadvantage is that there is little or no redundancy in positions derived, each of the baselines originates from the same control station. Redundancy can be incorporated, but it requires repetition of the observations so each baseline is determined with more than one GPS constellation. One way to do it is to occupy the

project points, the unknown positions, successively with more than one rover. It is best if these successive occupations are separated by at least 4 hours and not more than 8 hours so the satellite constellation can reach a significantly different configuration.

RTK and DGPS are radial. You have a known point in the middle, the base, and then the unknown points around it. This provides little geometric solidity. If there's an error in one of these radial base lines, it would be tough to catch it because there's no real redundancy. The illustration shows a way around this difficulty. There are two receivers, A and B, and it's possible by double occupation, one receiver going one way and the other going the other, by double occupying the unknown points to get some redundancy and some checks against the positions from a base. Another way to do it is to use one receiver. That receiver would occupy each points twice with four to eight hours between the first occupation and the second occupation on the point. Another way is to move the base to another known point. Then if you have vectors from another base into these points, you have a check. This approach allows a solution to be available from two separate control stations. Obviously, this can be done with re-occupation of the project points after one base station has been moved to a new control point, or a two base stations can be up and running from the very outset and throughout of the work as would be the case using two CORS stations. It is best if there are both two occupations on each point and each of the two utilize different base stations.

A more convenient but less desirable approach is to do a second occupation almost immediately after the first. The roving receiver's antenna is blocked or tilted until the lock on the satellites is interrupted. It is then re-oriented on the unknown position a second time for the repeat solution. This does offer a second solution, but from virtually the same constellation.

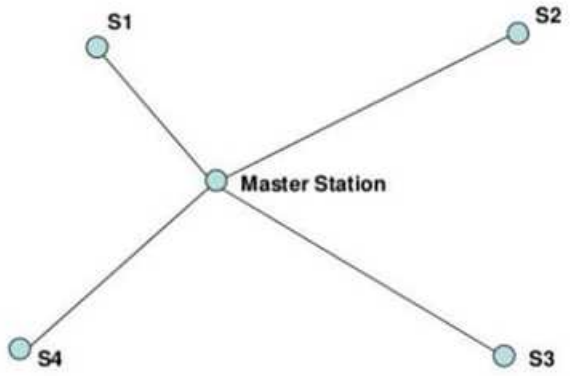
More efficiency can be achieved by adding additional roving receivers. However, as the number of receivers rises, the logistics become more complicated, and a survey plan becomes necessary. Also, project points that are simultaneously near one another but far from the control station should be directly connected with a baseline to maintain the integrity of the survey. Finally, if the base receiver loses lock and it goes unnoticed, it will completely defeat the radial survey for the time it is down.

These are a few possibilities to consider when you are doing a real-time survey.

An advantage to continuously operating reference station network is that since those bases are operating simultaneously and all the time, it's possible to download the positions from more than one base and process your new position based on these continuously operating reference stations and have some redundancy.

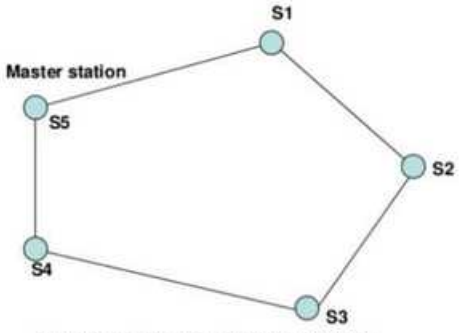
2. STATIC METHOD

I. Rapid Static Method



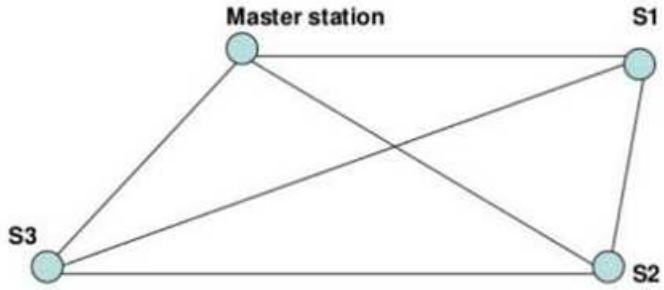
Schematic diagram of Rapid Static Method

II. Traverse Method



Schematic diagram of Traverse method

III. Trilateration Method



Trilateration method

3. INTRODUCTION TO SURVEY SITE

The surveyed area is located on **Village Khutdobra,** which comes under **Block Kondagaon, District Kondagaon, Chhattisgarh**. Kondagaon longitude lattitude is **81°39'46.21"E 19°35'25.31"N.** Survey site is located **5.2** Km from **Kondagaon**. Survey site comes under **Forest Division South Kondagaon & Forest Circle Kanker.**

AREA DETAILS & LAND CLASSIFICATION

S.No.	Division Name	District Name	Range Name	Village Name	Compartment No.	Area In Hectare
01	South Kondagaon	Kondagaon	Dahikonga	Khutdobra	P 795	2.522
					P 794	2.548
					P 777	0.235
					TOTAL	**5.305**
					RF 793	3.999
Total						**9.304**

LAND CLASSIFICATION SUMMARY

S.No.	LAND TYPE	Length (in km)	Width (in meter)	Area In Hectare
01	Forest land	3.10	30	9.304
02	Private land	5.79		17.379
	Total	**8.89**	**30**	**26.683**

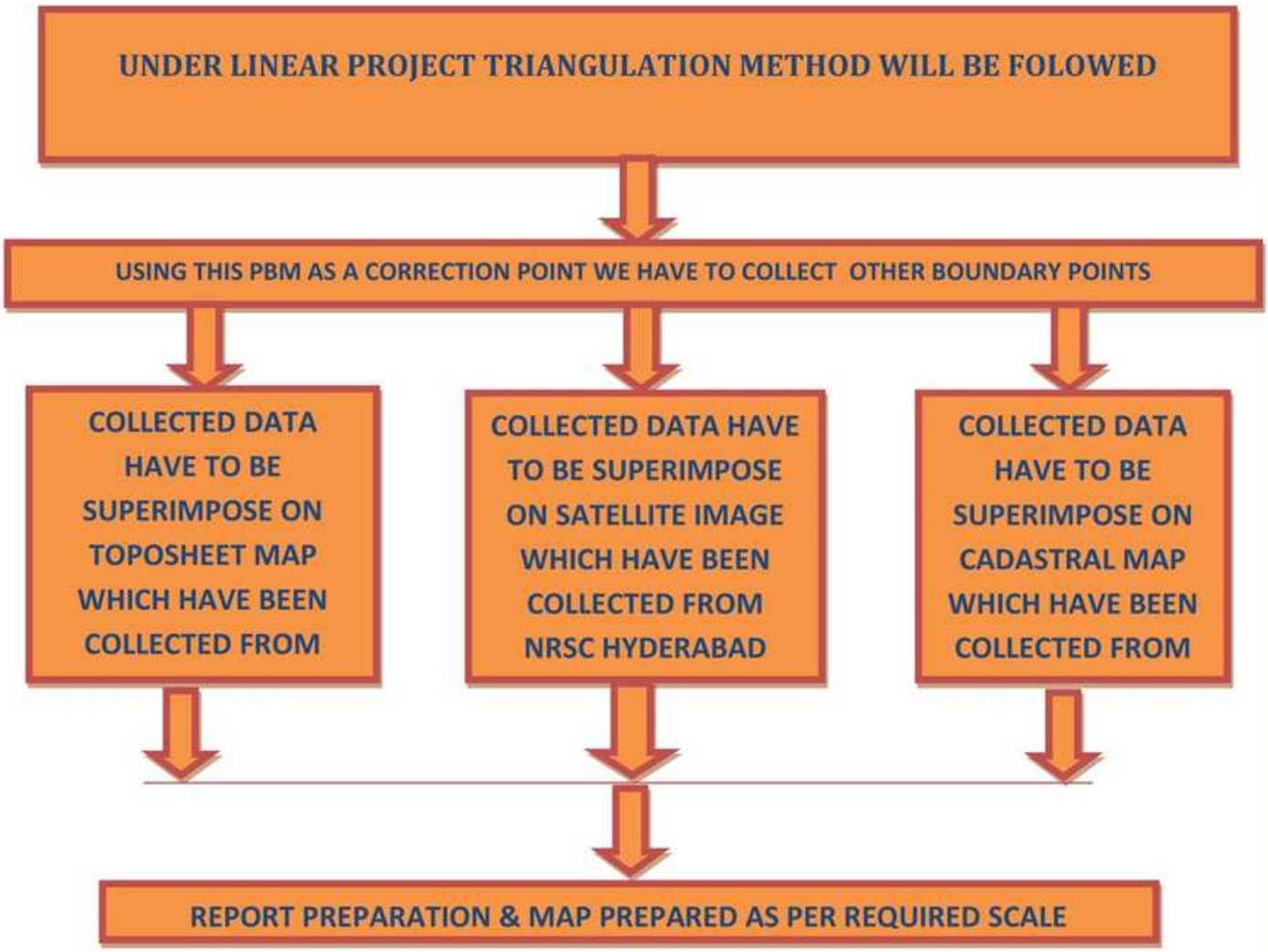
Executive Engineer
P.W.D. (B/R) Kondagaon
Division Kondagaon (C.G.)

Divisional Forest Officer
South Kondagaon Divisinal
Kondagaon

COMPUTER SURVEY RAIPUR

4. METHODOLOGY USED

SURVEY METHODOLOGY UNDER LINEAR PROJECT



5. CONTROL POINT

PRIMARY CONTROL POINT (FIXING OF BASE STATION POINTS)

S.No.	P.C.P (VILLAGE NAME)	LONGITUDE	LATTITUDE
1	Khutdobra	81° 41' 16.473" E	19° 36' 50.419" N
		81° 41' 15.477" E	19° 36' 51.043" N
		81° 41' 24.037" E	19° 35' 6.389" N

SURVEYED GROUND CONTROL POINTS

S.No.	PILLAR ID	LONGITUDE	LATTITUDE
1	C1	81° 40' 0.195" E	19° 37' 0.334" N
2	C2	81° 40' 4.245" E	19° 37' 0.622" N
3	C3	81° 40' 7.810" E	19° 37' 0.868" N
4	C4	81° 40' 11.744" E	19° 37' 0.761" N
5	C5	81° 40' 15.928" E	19° 37' 0.751" N
6	C6	81° 40' 20.040" E	19° 37' 0.955" N
7	C7	81° 40' 22.608" E	19° 37' 0.987" N
8	C8	81° 40' 26.332" E	19° 37' 1.228" N
9	C9	81° 40' 30.483" E	19° 37' 1.072" N
10	C9A	81° 40' 33.523" E	19° 37' 0.470" N
11	C10	81° 40' 36.612" E	19° 36' 59.858" N
12	C11	81° 40' 39.702" E	19° 36' 59.495" N
13	C11A	81° 40' 44.038" E	19° 36' 58.775" N
14	C12	81° 40' 48.534" E	19° 36' 58.028" N
15	C12A	81° 40' 51.655" E	19° 36' 57.564" N
16	C13	81° 40' 54.604" E	19° 36' 57.126" N
17	C13A	81° 40' 58.169" E	19° 36' 56.826" N
18	C14	81° 41' 1.358" E	19° 36' 56.559" N
19	C15	81° 41' 6.297" E	19° 36' 55.260" N
20	C16	81° 41' 9.616" E	19° 36' 53.082" N
21	C17	81° 41' 13.055" E	19° 36' 50.436" N
22	C18	81° 41' 13.859" E	19° 36' 49.352" N
23	C19	81° 41' 14.219" E	19° 36' 48.471" N
24	C20	81° 41' 15.576" E	19° 36' 45.790" N
25	C21	81° 41' 17.613" E	19° 36' 42.367" N
26	C21A	81° 41' 18.931" E	19° 36' 39.900" N
27	C22	81° 41' 20.182" E	19° 36' 37.559" N
28	C22A	81° 41' 21.276" E	19° 36' 35.117" N
29	C23	81° 41' 22.487" E	19° 36' 32.414" N

S.No.	PILLAR ID	LONGITUDE	LATTITUDE
30	C23A	81° 41' 23.386" E	19° 36' 29.066" N
31	C24	81° 41' 24.372" E	19° 36' 25.391" N
32	C25	81° 41' 25.157" E	19° 36' 21.336" N
33	C26	81° 41' 25.420" E	19° 36' 17.428" N
34	C27	81° 41' 26.254" E	19° 36' 14.073" N
35	C28	81° 41' 26.633" E	19° 36' 11.851" N
36	C29	81° 41' 27.099" E	19° 36' 7.960" N
37	C30	81° 41' 27.052" E	19° 36' 3.750" N
38	C30A	81° 41' 27.187" E	19° 36' 1.319" N
39	C31	81° 41' 27.309" E	19° 35' 59.127" N
40	C32	81° 41' 27.046" E	19° 35' 54.494" N
41	C33	81° 41' 26.922" E	19° 35' 51.282" N
42	C34	81° 41' 26.721" E	19° 35' 46.181" N
43	C34A	81° 41' 26.630" E	19° 35' 43.600" N
44	C35	81° 41' 26.541" E	19° 35' 41.075" N
45	C36	81° 41' 26.354" E	19° 35' 37.928" N
46	C36A	81° 41' 25.978" E	19° 35' 35.559" N
47	C37	81° 41' 25.538" E	19° 35' 32.784" N
48	C38	81° 41' 25.187" E	19° 35' 29.096" N
49	C39	81° 41' 24.731" E	19° 35' 24.756" N
50	C39A	81° 41' 24.322" E	19° 35' 22.024" N
51	C40	81° 41' 23.926" E	19° 35' 19.383" N
52	C41	81° 41' 23.616" E	19° 35' 14.735" N
53	C42	81° 41' 23.448" E	19° 35' 11.151" N
54	C43	81° 41' 22.267" E	19° 35' 7.452" N
55	C44	81° 41' 21.424" E	19° 35' 5.031" N
56	C44A	81° 41' 20.677" E	19° 35' 2.748" N
57	C45	81° 41' 19.307" E	19° 34' 58.650" N
58	C46	81° 41' 18.474" E	19° 34' 56.335" N
59	C46A	81° 41' 17.855" E	19° 34' 54.624" N
60	C47	81° 41' 17.054" E	19° 34' 52.411" N
61	C48	81° 41' 15.907" E	19° 34' 49.618" N
62	C49	81° 41' 14.914" E	19° 34' 46.226" N
63	C50	81° 41' 14.547" E	19° 34' 45.123" N
64	C51	81° 41' 13.489" E	19° 34' 42.353" N
65	C52	81° 41' 12.031" E	19° 34' 38.680" N
66	C52A	81° 41' 11.152" E	19° 34' 36.954" N
67	C53	81° 41' 10.453" E	19° 34' 35.596" N
68	C54	81° 41' 8.811" E	19° 34' 32.581" N
69	C55	81° 41' 7.528" E	19° 34' 29.856" N
70	C56	81° 41' 6.171" E	19° 34' 26.718" N
71	C57	81° 41' 5.251" E	19° 34' 24.260" N
72	C58	81° 41' 4.242" E	19° 34' 20.452" N
73	C59	81° 41' 3.630" E	19° 34' 18.567" N
74	C59A	81° 41' 2.959" E	19° 34' 16.301" N
75	C60	81° 41' 2.369" E	19° 34' 14.303" N

S.No.	PILLAR ID	LONGITUDE	LATTITUDE
76	C61	81° 41' 1.273" E	19° 34' 11.037" N
77	C62	81° 41' 0.533" E	19° 34' 7.917" N
78	C63	81° 41' 0.105" E	19° 34' 5.770" N
79	C63A	81° 40' 59.530" E	19° 34' 2.914" N
80	C63B	81° 40' 59.001" E	19° 34' 0.284" N
81	C64	81° 40' 58.408" E	19° 33' 57.336" N
82	C65	81° 40' 57.856" E	19° 33' 54.162" N
83	C66	81° 40' 57.277" E	19° 33' 50.191" N
84	C67	81° 40' 57.290" E	19° 33' 46.212" N
85	C68	81° 40' 57.109" E	19° 33' 43.473" N
86	C69	81° 40' 56.786" E	19° 33' 41.561" N
87	C70	81° 40' 56.468" E	19° 33' 39.592" N
88	C71	81° 40' 55.948" E	19° 33' 37.694" N
89	C71A	81° 40' 55.313" E	19° 33' 35.641" N
90	C72	81° 40' 54.527" E	19° 33' 33.099" N
91	C73	81° 40' 53.611" E	19° 33' 31.081" N
92	C74	81° 40' 52.266" E	19° 33' 28.861" N
93	C75	81° 40' 51.934" E	19° 33' 28.384" N
94	C75A	81° 40' 50.312" E	19° 33' 27.109" N
95	C76	81° 40' 49.316" E	19° 33' 26.339" N
96	C76A	81° 40' 46.834" E	19° 33' 25.552" N
97	C77	81° 40' 44.181" E	19° 33' 24.711" N
98	L1	81° 41' 23.955" E	19° 35' 11.089" N
99	L2	81° 41' 21.899" E	19° 35' 4.836" N
100	L2A	81° 41' 21.190" E	19° 35' 2.698" N
101	L3	81° 41' 19.787" E	19° 34' 58.472" N
102	L4	81° 41' 17.555" E	19° 34' 52.290" N
103	L5	81° 41' 15.084" E	19° 34' 45.114" N
104	L6	81° 41' 12.523" E	19° 34' 38.532" N
105	L6A	81° 41' 11.628" E	19° 34' 36.774" N
106	L7	81° 41' 9.279" E	19° 34' 32.376" N
107	L8	81° 41' 6.704" E	19° 34' 26.664" N
108	L9	81° 41' 4.750" E	19° 34' 20.367" N
109	L10	81° 41' 2.867" E	19° 34' 14.182" N
110	L10A	81° 41' 2.106" E	19° 34' 11.993" N
111	L11	81° 41' 1.052" E	19° 34' 7.879" N
112	L12	81° 40' 58.926" E	19° 33' 57.306" N
113	L13	81° 40' 57.796" E	19° 33' 50.187" N
114	L14	81° 40' 57.304" E	19° 33' 41.544" N
115	L15	81° 40' 54.986" E	19° 33' 32.874" N
116	L15A	81° 40' 52.460" E	19° 33' 28.256" N
117	L16	81° 40' 52.336" E	19° 33' 28.081" N
118	L16A	81° 40' 50.345" E	19° 33' 26.514" N
119	L16B	81° 40' 49.592" E	19° 33' 25.927" N
120	L17	81° 40' 44.345" E	19° 33' 24.248" N
121	R1	81° 41' 22.936" E	19° 35' 11.234" N

S.No.	PILLAR ID	LONGITUDE	LATTITUDE
122	R2	81° 41' 20.959" E	19° 35' 5.254" N
123	R2A	81° 41' 20.144" E	19° 35' 2.799" N
124	R3	81° 41' 18.824" E	19° 34' 58.821" N
125	R4	81° 41' 16.574" E	19° 34' 52.588" N
126	R5	81° 41' 14.005" E	19° 34' 45.140" N
127	R6	81° 41' 11.520" E	19° 34' 38.798" N
128	R6A	81° 41' 10.669" E	19° 34' 37.136" N
129	R7	81° 41' 8.371" E	19° 34' 32.836" N
130	R8	81° 41' 5.660" E	19° 34' 26.812" N
131	R9	81° 41' 3.732" E	19° 34' 20.541" N
132	R10	81° 41' 1.872" E	19° 34' 14.434" N
133	R10A	81° 41' 0.545" E	19° 34' 10.200" N
134	R11	81° 41' 0.016" E	19° 34' 7.953" N
135	R12	81° 40' 57.890" E	19° 33' 57.354" N
136	R13	81° 40' 56.762" E	19° 33' 50.182" N
137	R14	81° 40' 56.271" E	19° 33' 41.598" N
138	R15	81° 40' 54.054" E	19° 33' 33.304" N
139	R15A	81° 40' 52.104" E	19° 33' 29.522" N
140	R16	81° 40' 51.535" E	19° 33' 28.697" N
141	R16A	81° 40' 50.278" E	19° 33' 27.719" N
142	R16B	81° 40' 49.062" E	19° 33' 26.773" N
143	R17	81° 40' 43.988" E	19° 33' 25.164" N

Executive Engineer
P.W.D. (B/R) Kondagaon
Division Kondagaon (C.G.)

Divisional Forest Officer
South Kondagaon Divisinal
Kondagaon

COMPUTER CELL
RAIPUR

6. SURVEY DATE

SURVEY DATE	SURVEY TIME	VILLAGE NAME
07/07/2017	11.00 AM To 05.00 PM	Khutdobra

Weather was nice with clear sun light. Survey pillar marking has been done before itself so it was easy to get the location point**.** Survey has been done by the survey team members Mr. Rakesh kumar ratre & Mr. Biru vishwas. The team was lead by Mr. Santosh sahu.

Base Station Photographs

Survey photographs with staff

Survey pillar photographs :-

Compartment No.: P 795

Compartment No.: P 794

Compartment No.: RF 793


PF
794
RF
793
L8
RF
793
L9
RF
793
L10
RF
793
L11
RF
793
L12
RF
793
L13
RF
793
L14
RF
793
L15
RF
793
PF
777
L16
PF
794
RF
793
RF
793
PF
777
CT5

Compartment No.: PF-777

DGPS SURVEY & REPORT PREPARED BY:

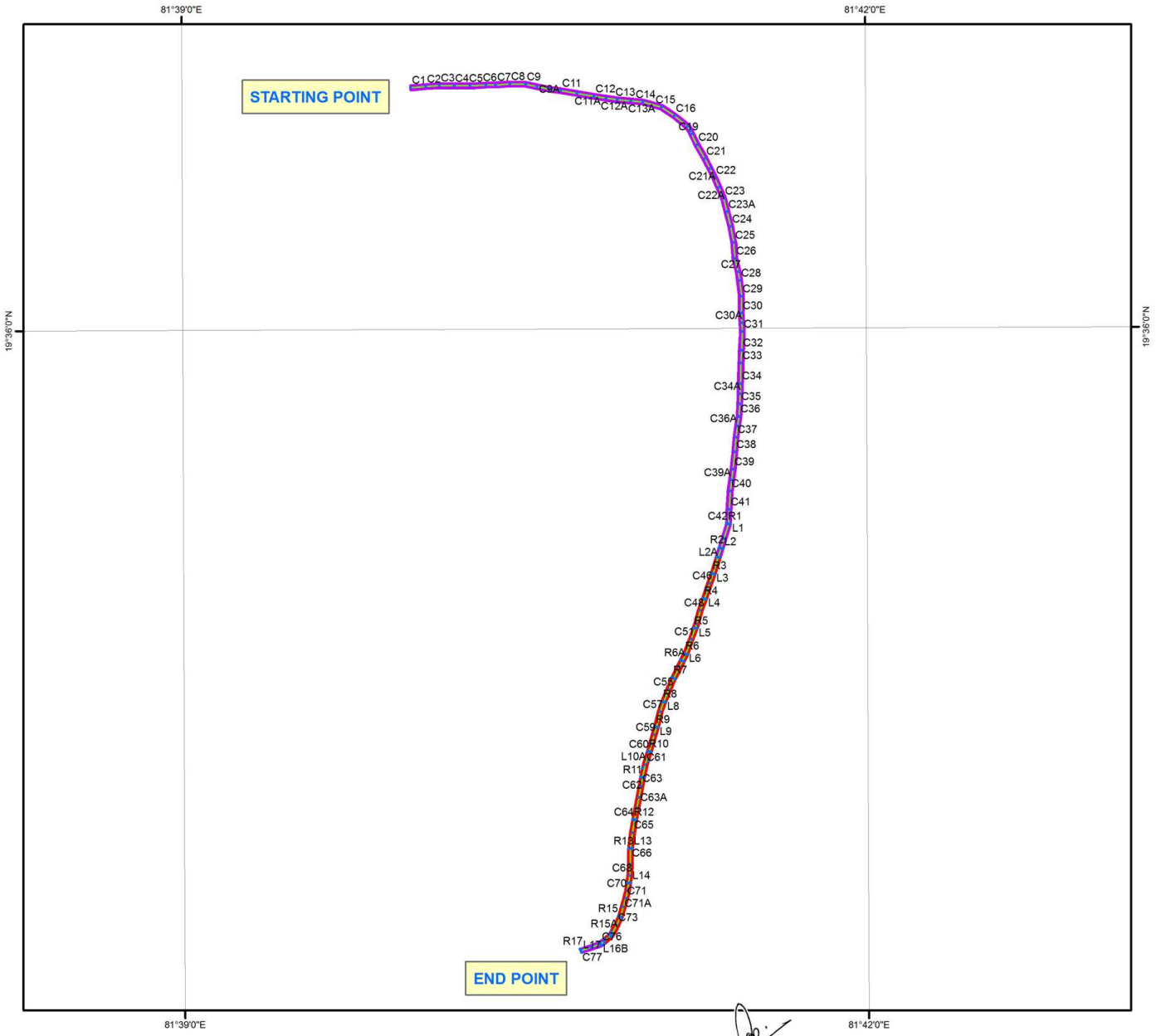
COMPUTER PLUS

Software Development & Consultancy

Plot No. 4 Sector-1, Devendra Nagar
Raipur (C.G.) 492001
Phone No: 0771 4031077 M : 7587113793
E-mail: info@cplus.in Website: www.cplus.in

Service providing

- GPS & DGPS Land Survey
- GIS ANALYSIS WORKS
- GIS MAPPING & TOPOLOGICAL SURVEY
- MAP DIGITIZATION
- SOFTWARE DEVELOPMENT & WEB DESIGNING
- MOBILE & WEB APPS
- DATA ANALYSIS WORK



GEO REFERENCE OF SURVEY SITE
FOREST DIVISION SOUTH KONDAGAON
DISTRICT KONDAGAON
CHHATTISGARH

Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

SURVEYED GROUND CONTROL POINTS

S.No.	LONGITUDE	LATTITUDE	S.No.	LONGITUDE	LATTITUDE	S.No.	LONGITUDE	LATTITUDE
C1	81° 40' 0.195" E	19° 37' 0.334" N	C39	81° 41' 24.731" E	19° 35' 24.756" N	C77	81° 40' 44.181" E	19° 33' 24.711" N
C2	81° 40' 4.245" E	19° 37' 0.622" N	C39A	81° 41' 24.322" E	19° 35' 22.024" N	L1	81° 41' 23.955" E	19° 35' 11.089" N
C3	81° 40' 7.810" E	19° 37' 0.868" N	C40	81° 41' 23.926" E	19° 35' 19.383" N	L2	81° 41' 21.899" E	19° 35' 4.836" N
C4	81° 40' 11.744" E	19° 37' 0.761" N	C41	81° 41' 23.616" E	19° 35' 14.735" N	L2A	81° 41' 21.190" E	19° 35' 2.698" N
C5	81° 40' 15.928" E	19° 37' 0.751" N	C42	81° 41' 23.448" E	19° 35' 11.151" N	L3	81° 41' 19.787" E	19° 34' 58.472" N
C6	81° 40' 20.040" E	19° 37' 0.955" N	C43	81° 41' 22.267" E	19° 35' 7.452" N	L4	81° 41' 17.555" E	19° 34' 52.290" N
C7	81° 40' 22.608" E	19° 37' 0.987" N	C44	81° 41' 21.424" E	19° 35' 5.031" N	L5	81° 41' 15.084" E	19° 34' 45.114" N
C8	81° 40' 26.332" E	19° 37' 1.228" N	C44A	81° 41' 20.677" E	19° 35' 2.748" N	L6	81° 41' 12.523" E	19° 34' 38.532" N
C9	81° 40' 30.483" E	19° 37' 1.072" N	C45	81° 41' 19.307" E	19° 34' 58.650" N	L6A	81° 41' 11.628" E	19° 34' 36.774" N
C9A	81° 40' 33.523" E	19° 37' 0.470" N	C46	81° 41' 18.474" E	19° 34' 56.335" N	L7	81° 41' 9.279" E	19° 34' 32.376" N
C10	81° 40' 36.612" E	19° 36' 59.858" N	C46A	81° 41' 17.855" E	19° 34' 54.624" N	L8	81° 41' 6.704" E	19° 34' 26.664" N
C11	81° 40' 39.702" E	19° 36' 59.495" N	C47	81° 41' 17.054" E	19° 34' 52.411" N	L9	81° 41' 4.750" E	19° 34' 20.367" N
C11A	81° 40' 44.038" E	19° 36' 58.775" N	C48	81° 41' 15.907" E	19° 34' 49.618" N	L10	81° 41' 2.867" E	19° 34' 14.182" N
C12	81° 40' 48.534" E	19° 36' 58.028" N	C49	81° 41' 14.914" E	19° 34' 46.226" N	L10A	81° 41' 2.106" E	19° 34' 11.993" N
C12A	81° 40' 51.655" E	19° 36' 57.564" N	C50	81° 41' 14.547" E	19° 34' 45.123" N	L11	81° 41' 1.052" E	19° 34' 7.879" N
C13	81° 40' 54.604" E	19° 36' 57.126" N	C51	81° 41' 13.489" E	19° 34' 42.353" N	L12	81° 40' 58.926" E	19° 33' 57.306" N
C13A	81° 40' 58.169" E	19° 36' 56.826" N	C52	81° 41' 12.031" E	19° 34' 38.680" N	L13	81° 40' 57.796" E	19° 33' 50.187" N
C14	81° 41' 1.358" E	19° 36' 56.559" N	C52A	81° 41' 11.152" E	19° 34' 36.954" N	L14	81° 40' 57.304" E	19° 33' 41.544" N
C15	81° 41' 6.297" E	19° 36' 55.260" N	C53	81° 41' 10.453" E	19° 34' 35.596" N	L15	81° 40' 54.986" E	19° 33' 32.874" N
C16	81° 41' 9.616" E	19° 36' 53.082" N	C54	81° 41' 8.811" E	19° 34' 32.581" N	L15A	81° 40' 52.460" E	19° 33' 28.256" N
C17	81° 41' 13.055" E	19° 36' 50.436" N	C55	81° 41' 7.528" E	19° 34' 29.856" N	L16	81° 40' 52.336" E	19° 33' 28.081" N
C18	81° 41' 13.859" E	19° 36' 49.352" N	C56	81° 41' 6.171" E	19° 34' 26.718" N	L16A	81° 40' 50.345" E	19° 33' 26.514" N
C19	81° 41' 14.219" E	19° 36' 48.471" N	C57	81° 41' 5.251" E	19° 34' 24.260" N	L16B	81° 40' 49.592" E	19° 33' 25.927" N
C20	81° 41' 15.576" E	19° 36' 45.790" N	C58	81° 41' 4.242" E	19° 34' 20.452" N	L17	81° 40' 44.345" E	19° 33' 24.248" N
C21	81° 41' 17.613" E	19° 36' 42.367" N	C59	81° 41' 3.630" E	19° 34' 18.567" N	R1	81° 41' 22.936" E	19° 35' 11.234" N
C21A	81° 41' 18.931" E	19° 36' 39.900" N	C59A	81° 41' 2.959" E	19° 34' 16.301" N	R2	81° 41' 20.959" E	19° 35' 5.254" N
C22	81° 41' 20.182" E	19° 36' 37.559" N	C60	81° 41' 2.369" E	19° 34' 14.303" N	R2A	81° 41' 20.144" E	19° 35' 2.799" N
C22A	81° 41' 21.276" E	19° 36' 35.117" N	C61	81° 41' 1.273" E	19° 34' 11.037" N	R3	81° 41' 18.824" E	19° 34' 58.821" N
C23	81° 41' 22.487" E	19° 36' 32.414" N	C62	81° 41' 0.533" E	19° 34' 7.917" N	R4	81° 41' 16.574" E	19° 34' 52.588" N
C23A	81° 41' 23.386" E	19° 36' 29.066" N	C63	81° 41' 0.105" E	19° 34' 5.770" N	R5	81° 41' 14.005" E	19° 34' 45.140" N
C24	81° 41' 24.372" E	19° 36' 25.391" N	C63A	81° 40' 59.530" E	19° 34' 2.914" N	R6	81° 41' 11.520" E	19° 34' 38.798" N
C25	81° 41' 25.157" E	19° 36' 21.336" N	C63B	81° 40' 59.001" E	19° 34' 0.284" N	R6A	81° 41' 10.669" E	19° 34' 37.136" N
C26	81° 41' 25.420" E	19° 36' 17.428" N	C64	81° 40' 58.408" E	19° 33' 57.336" N	R7	81° 41' 8.371" E	19° 34' 32.836" N
C27	81° 41' 26.254" E	19° 36' 14.073" N	C65	81° 40' 57.856" E	19° 33' 54.162" N	R8	81° 41' 5.660" E	19° 34' 26.812" N
C28	81° 41' 26.633" E	19° 36' 11.851" N	C66	81° 40' 57.277" E	19° 33' 50.191" N	R9	81° 41' 3.732" E	19° 34' 20.541" N
C29	81° 41' 27.099" E	19° 36' 7.960" N	C67	81° 40' 57.290" E	19° 33' 46.212" N	R10	81° 41' 1.872" E	19° 34' 14.434" N
C30	81° 41' 27.052" E	19° 36' 3.750" N	C68	81° 40' 57.109" E	19° 33' 43.473" N	R10A	81° 41' 0.545" E	19° 34' 10.200" N
C30A	81° 41' 27.187" E	19° 36' 1.319" N	C69	81° 40' 56.786" E	19° 33' 41.561" N	R11	81° 41' 0.016" E	19° 34' 7.953" N
C31	81° 41' 27.309" E	19° 35' 59.127" N	C70	81° 40' 56.468" E	19° 33' 39.592" N	R12	81° 40' 57.890" E	19° 33' 57.354" N
C32	81° 41' 27.046" E	19° 35' 54.494" N	C71	81° 40' 55.948" E	19° 33' 37.694" N	R13	81° 40' 56.762" E	19° 33' 50.182" N
C33	81° 41' 26.922" E	19° 35' 51.282" N	C71A	81° 40' 55.313" E	19° 33' 35.641" N	R14	81° 40' 56.271" E	19° 33' 41.598" N
C34	81° 41' 26.721" E	19° 35' 46.181" N	C72	81° 40' 54.527" E	19° 33' 33.099" N	R15	81° 40' 54.054" E	19° 33' 33.304" N
C34A	81° 41' 26.630" E	19° 35' 43.600" N	C73	81° 40' 53.611" E	19° 33' 31.081" N	R15A	81° 40' 52.104" E	19° 33' 29.522" N
C35	81° 41' 26.541" E	19° 35' 41.075" N	C74	81° 40' 52.266" E	19° 33' 28.861" N	R16	81° 40' 51.535" E	19° 33' 28.697" N
C36	81° 41' 26.354" E	19° 35' 37.928" N	C75	81° 40' 51.934" E	19° 33' 28.384" N	R16A	81° 40' 50.278" E	19° 33' 27.719" N
C36A	81° 41' 25.978" E	19° 35' 35.559" N	C75A	81° 40' 50.312" E	19° 33' 27.109" N	R16B	81° 40' 49.062" E	19° 33' 26.773" N
C37	81° 41' 25.538" E	19° 35' 32.784" N	C76	81° 40' 49.316" E	19° 33' 26.339" N	R17	81° 40' 43.988" E	19° 33' 25.164" N
C38	81° 41' 25.187" E	19° 35' 29.096" N	C76A	81° 40' 46.834" E	19° 33' 25.552" N			

Executive Engineer
P.W.D. (B/R) Kondagaon
Division Kondagaon (C.G.)

SEAL & SIGN

Legend
- CENTER_LINE
- SURVEYED_GROUND_CONTROL_POINT

SURVEY SITE TOTAL AREA : 26.683 (In Hect)
- FOREST LAND AREA : 9.304 (In Hect)
- PRIVATE LAND AREA : 17.379 (In Hect)

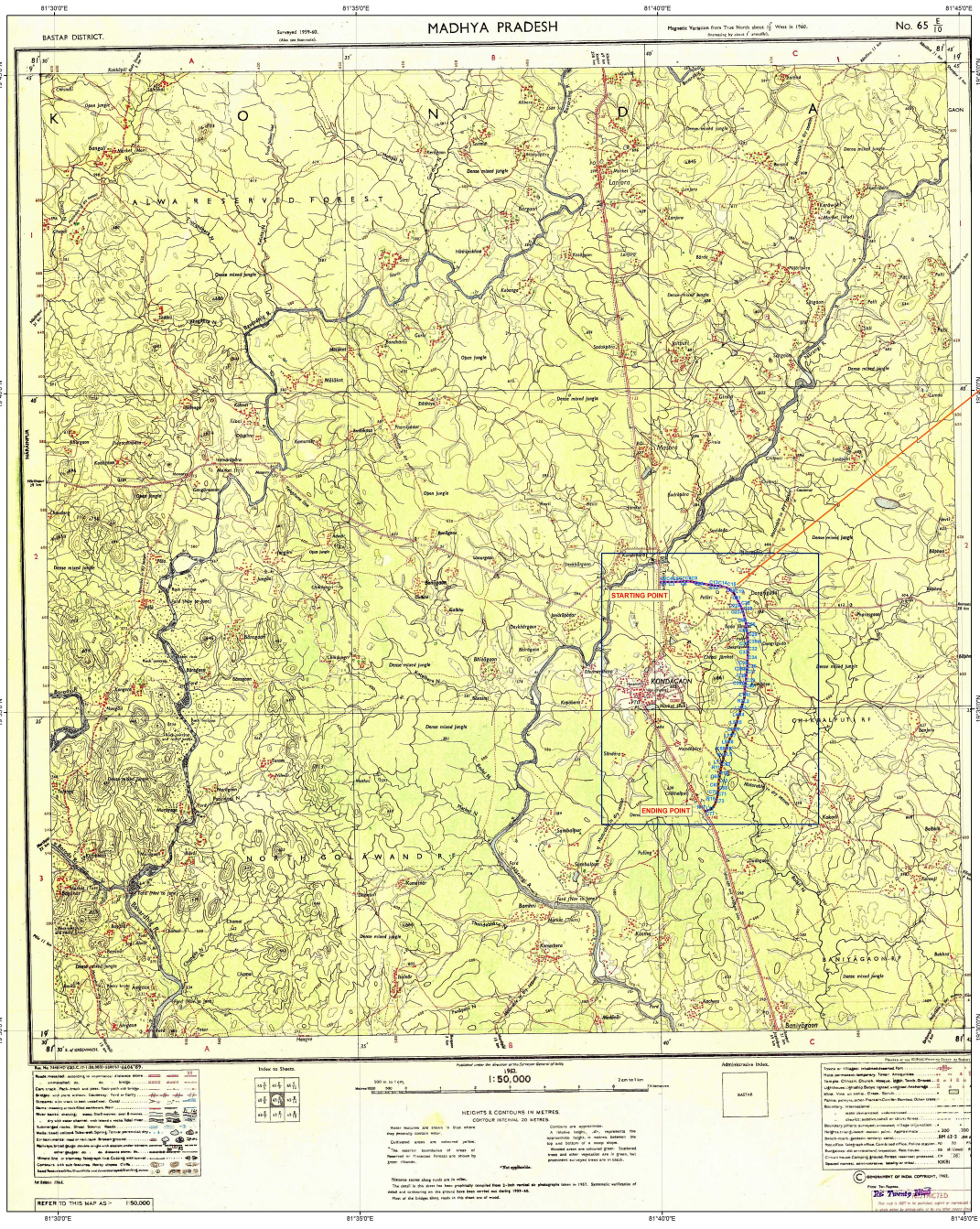
Scale
1:34,000

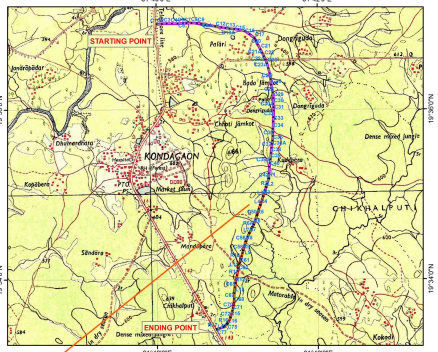
0 430 860 1,720 2,580 3,440 Meters

MAP PREPARED BY
COMPUTER PLUS RAIPUR

Divisional Forest Officer
South Kondagaon Divisional
Kondagaon

SURVEY SITE ON SOI TOPOSHEET No. : 65E10
COMPARTMENT No. : P795,P794,P777,793
FOREST DIVISION SOUTH KONDAGAON
DISTRICT KONDAGAON
CHHATTISGARH





SURVEYED GROUND CONTROL POINTS

S.No.	LONGITUDE	LATTITUDE	S.No.	LONGITUDE	LATTITUDE	S.No.	LONGITUDE	LATTITUDE
C1	81° 40' 0.195" E	19° 37' 0.334" N	C39	81° 41' 24.731" E	19° 35' 24.756" N	C77	81° 40' 44.181" E	19° 33' 24.711" N
C2	81° 40' 4.245" E	19° 37' 0.622" N	C39A	81° 41' 24.322" E	19° 35' 22.024" N	L1	81° 41' 23.955" E	19° 35' 11.089" N
C3	81° 40' 7.810" E	19° 37' 0.868" N	C40	81° 41' 23.926" E	19° 35' 19.383" N	L2	81° 41' 21.899" E	19° 35' 4.836" N
C4	81° 40' 11.744" E	19° 37' 0.761" N	C41	81° 41' 23.616" E	19° 35' 14.735" N	L2A	81° 41' 21.190" E	19° 35' 2.698" N
C5	81° 40' 15.928" E	19° 37' 0.751" N	C42	81° 41' 23.448" E	19° 35' 11.151" N	L3	81° 41' 19.787" E	19° 34' 58.472" N
C6	81° 40' 20.040" E	19° 37' 0.955" N	C43	81° 41' 22.267" E	19° 35' 7.452" N	L4	81° 41' 17.555" E	19° 34' 52.290" N
C7	81° 40' 22.609" E	19° 37' 0.987" N	C44	81° 41' 21.424" E	19° 35' 5.031" N	L5	81° 41' 15.084" E	19° 34' 45.114" N
C8	81° 40' 26.332" E	19° 37' 1.228" N	C44A	81° 41' 20.677" E	19° 35' 2.748" N	L6	81° 41' 12.523" E	19° 34' 38.532" N
C9	81° 40' 30.483" E	19° 37' 1.072" N	C45	81° 41' 19.307" E	19° 34' 58.653" N	L6A	81° 41' 11.628" E	19° 34' 36.774" N
C9A	81° 40' 33.523" E	19° 37' 0.470" N	C46	81° 41' 18.474" E	19° 34' 56.335" N	L7	81° 41' 9.279" E	19° 34' 32.376" N
C10	81° 40' 36.612" E	19° 36' 59.858" N	C46A	81° 41' 17.855" E	19° 34' 54.624" N	L8	81° 41' 6.706" E	19° 34' 26.664" N
C11	81° 40' 39.702" E	19° 36' 59.495" N	C47	81° 41' 17.054" E	19° 34' 52.411" N	L9	81° 41' 4.750" E	19° 34' 20.367" N
C11A	81° 40' 44.038" E	19° 36' 58.775" N	C48	81° 41' 15.907" E	19° 34' 49.618" N	L10	81° 41' 2.867" E	19° 34' 14.182" N
C12	81° 40' 46.534" E	19° 36' 58.028" N	C49	81° 41' 14.914" E	19° 34' 46.226" N	L10A	81° 41' 2.108" E	19° 34' 11.993" N
C12A	81° 40' 51.655" E	19° 36' 57.564" N	C50	81° 41' 14.547" E	19° 34' 45.123" N	L11	81° 41' 1.052" E	19° 34' 7.879" N
C13	81° 40' 54.604" E	19° 36' 57.126" N	C51	81° 41' 13.489" E	19° 34' 42.353" N	L12	81° 40' 58.926" E	19° 33' 57.306" N
C13A	81° 40' 58.169" E	19° 36' 56.826" N	C52	81° 41' 12.051" E	19° 34' 38.680" N	L13	81° 40' 57.796" E	19° 33' 50.187" N
C14	81° 41' 1.358" E	19° 36' 56.559" N	C52A	81° 41' 11.152" E	19° 34' 36.954" N	L14	81° 40' 57.304" E	19° 33' 41.544" N
C15	81° 41' 4.297" E	19° 36' 55.260" N	C53	81° 41' 10.453" E	19° 34' 35.596" N	L15	81° 40' 54.980" E	19° 33' 32.874" N
C16	81° 41' 9.616" E	19° 36' 53.082" N	C54	81° 41' 8.811" E	19° 34' 32.581" N	L15A	81° 40' 52.460" E	19° 33' 28.256" N
C17	81° 41' 13.055" E	19° 36' 50.436" N	C55	81° 41' 7.528" E	19° 34' 29.856" N	L16	81° 40' 52.336" E	19° 33' 28.081" N
C18	81° 41' 13.859" E	19° 36' 49.352" N	C56	81° 41' 6.171" E	19° 34' 26.718" N	L16A	81° 40' 50.345" E	19° 33' 26.514" N
C19	81° 41' 14.219" E	19° 36' 48.471" N	C57	81° 41' 5.251" E	19° 34' 24.260" N	L16B	81° 40' 49.592" E	19° 33' 25.927" N
C20	81° 41' 15.576" E	19° 36' 45.790" N	C58	81° 41' 4.242" E	19° 34' 20.452" N	L17	81° 40' 44.345" E	19° 33' 14.248" N
C21	81° 41' 17.613" E	19° 36' 42.307" N	C59	81° 41' 3.630" E	19° 34' 18.567" N	R1	81° 41' 22.936" E	19° 35' 11.234" N
C21A	81° 41' 18.931" E	19° 36' 39.900" N	C59A	81° 41' 2.959" E	19° 34' 16.301" N	R2	81° 41' 20.959" E	19° 35' 5.254" N
C22	81° 41' 20.182" E	19° 36' 37.559" N	C60	81° 41' 2.369" E	19° 34' 14.303" N	R2A	81° 41' 20.144" E	19° 35' 2.799" N
C22A	81° 41' 21.276" E	19° 36' 35.117" N	C61	81° 41' 1.273" E	19° 34' 11.037" N	R3	81° 41' 18.624" E	19° 34' 58.821" N
C23	81° 41' 22.482" E	19° 36' 32.414" N	C62	81° 41' 0.533" E	19° 34' 7.917" N	R4	81° 41' 16.574" E	19° 34' 52.588" N
C23A	81° 41' 23.386" E	19° 36' 29.066" N	C63	81° 41' 0.105" E	19° 34' 5.770" N	R5	81° 41' 14.005" E	19° 34' 45.140" N
C24	81° 41' 24.373" E	19° 36' 25.391" N	C63A	81° 40' 59.530" E	19° 34' 2.914" N	R6	81° 41' 11.520" E	19° 34' 38.798" N
C25	81° 41' 25.153" E	19° 36' 21.536" N	C63B	81° 40' 59.001" E	19° 34' 0.284" N	R6A	81° 41' 10.669" E	19° 34' 37.136" N
C26	81° 41' 25.420" E	19° 36' 17.428" N	C64	81° 40' 58.408" E	19° 33' 57.336" N	R7	81° 41' 8.371" E	19° 34' 32.836" N
C27	81° 41' 26.254" E	19° 36' 14.073" N	C65	81° 40' 57.856" E	19° 33' 54.162" N	R8	81° 41' 5.660" E	19° 34' 26.812" N
C28	81° 41' 26.633" E	19° 36' 11.851" N	C66	81° 40' 57.277" E	19° 33' 50.191" N	R9	81° 41' 3.732" E	19° 34' 20.541" N
C29	81° 41' 27.099" E	19° 36' 7.960" N	C67	81° 40' 57.290" E	19° 33' 46.232" N	R10	81° 41' 1.872" E	19° 34' 14.434" N
C30	81° 41' 27.052" E	19° 36' 3.750" N	C68	81° 40' 57.109" E	19° 33' 43.673" N	R10A	81° 41' 0.545" E	19° 34' 10.200" N
C30A	81° 41' 27.187" E	19° 36' 1.319" N	C69	81° 40' 56.786" E	19° 33' 41.561" N	R11	81° 41' 0.016" E	19° 34' 7.953" N
C31	81° 41' 27.309" E	19° 35' 59.127" N	C70	81° 40' 56.468" E	19° 33' 39.592" N	R12	81° 40' 57.890" E	19° 33' 57.354" N
C32	81° 41' 27.040" E	19° 35' 54.494" N	C71	81° 40' 55.948" E	19° 33' 37.694" N	R13	81° 40' 56.762" E	19° 33' 50.182" N
C33	81° 41' 26.922" E	19° 35' 51.282" N	C71A	81° 40' 55.313" E	19° 33' 35.641" N	R14	81° 40' 56.271" E	19° 33' 41.598" N
C34	81° 41' 26.723" E	19° 35' 46.181" N	C72	81° 40' 54.527" E	19° 33' 33.099" N	R15	81° 40' 54.054" E	19° 33' 33.304" N
C34A	81° 41' 26.630" E	19° 35' 43.600" N	C73	81° 40' 53.631" E	19° 33' 31.081" N	R15A	81° 40' 52.104" E	19° 33' 29.522" N
C35	81° 41' 26.541" E	19° 35' 41.075" N	C74	81° 40' 52.266" E	19° 33' 28.861" N	R16	81° 40' 51.535" E	19° 33' 28.697" N
C36	81° 41' 26.354" E	19° 35' 37.928" N	C75	81° 40' 51.934" E	19° 33' 28.384" N	R16A	81° 40' 50.278" E	19° 33' 27.719" N
C36A	81° 41' 25.978" E	19° 35' 35.559" N	C75A	81° 40' 50.312" E	19° 33' 27.109" N	R16B	81° 40' 49.062" E	19° 33' 26.773" N
C37	81° 41' 25.538" E	19° 35' 32.784" N	C76	81° 40' 49.316" E	19° 33' 26.339" N	R17	81° 40' 43.888" E	19° 33' 25.164" N
C38	81° 41' 25.187" E	19° 35' 29.096" N	C76A	81° 40' 46.834" E	19° 33' 25.552" N			

Legend
- CENTER_LINE
- SURVEYED_GROUND_CONTROL_POINT

SURVEY SITE TOTAL AREA : 26.683 (In Hect)
- FOREST LAND AREA : 9.304 (In Hect)
- PRIVATE LAND AREA : 17.379 (In Hect)

SOI TOPOSHEET No. 65E10

RGB
- Red: Band_1
- Green: Band_2
- Blue: Band_3

Geographic Coordinate Systems
WGS 1984
Projected Coordinate Systems
WGS 1984 UTM Zone 44N

SEAL & SIGN

MAP PREPARED BY
COMPUTER PLUS RAIPUR

Executive Engineer
P.W.D. (R/B) Kondagaon
Division Kondagaon (C.G.)

Divisional Forest Officer
South Kondagaon Nirmalkal
Kondagaon

Scale
1:50,000