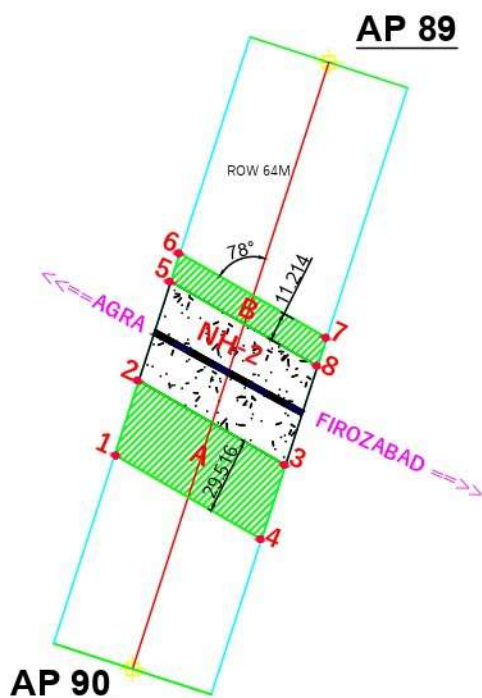
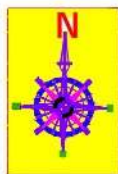


GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE NH-2 (AGRA - FIROZABAD) NEAR VILLAGE - HAZRATPUR, TUNDLA, FIROZABAD



SCALE
0 5 10 20 30 40 METERS



Legend	
	Tower Location
	Forest Area DGPS Coordinates
	Road
	Transmission Line Corridor In Forest area
	Transmission Line Corridor In Non-Forest area

Forest Area DGPS Coordinates			
AREA	SL. NO.	LATITUDE	LONGITUDE
A	1	27°12'35.75"	78°17'56.37"
	2	27°12'36.69"	78°17'56.68"
	3	27°12'35.67"	78°17'58.77"
	4	27°12'34.74"	78°17'58.45"
B	5	27°12'37.94"	78°17'57.10"
	6	27°12'38.29"	78°17'57.23"
	7	27°12'37.28"	78°17'59.31"
	8	27°12'36.92"	78°17'59.19"

AREA PROPOSED FOR DIVERSION			
Forest Length(m)	R.O.W Corridor(m)	Forest Area (m2)	Forest Area (ha.)
40.73 (29.516+11.214)	64.0	2664	0.2664

Area Calculation For A & B

$$(A) \frac{64m}{\sin(78^\circ)} \times 29.516m = 1930.8 m^2$$

$$0.19308 \text{ Hectares}$$

$$(B) \frac{64m}{\sin(78^\circ)} \times 11.214m = 733.5 m^2$$

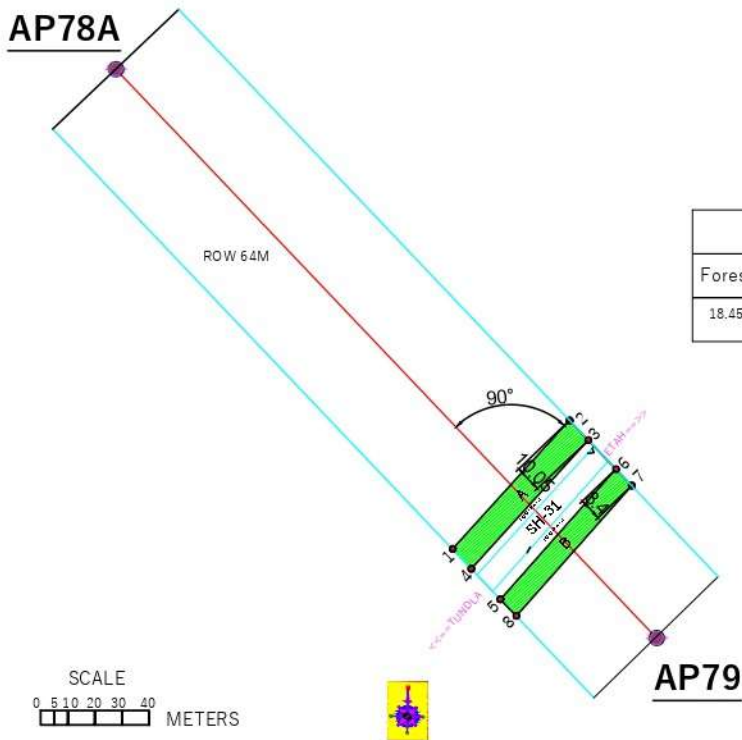
$$0.07335 \text{ Hectares}$$

Total Forest Area = 0.2664 Hectares



PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	GHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:-	01/04/2019
DRAWING NO.-	GTL/A-G/07

**GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
SH-31 (TUNDLA-ETAH) NEAR VILLAGE - PACHOKARA, TUNDLA , FIROZABAD**



Forest Area DGPS Coordinates			
AREA	SL. NO.	LATITUDE	LONGITUDE
A	1	27°16'39.21"	78°17'9.54"
	2	27°16'40.78"	78°17'11.07"
	3	27°16'40.57"	78°17'11.35"
	4	27°16'38.85"	78°17'9.95"
B	5	27°16'38.65"	78°17'10.23"
	6	27°16'40.22"	78°17'11.74"
	7	27°16'40.05"	78°17'11.96"
	8	27°16'38.44"	78°17'10.44"

AREA PROPOSED FOR DIVERSION			
Forest Length(m)	R.O.W Corridor(m)	Forest Area (m2)	Forest Area (ha.)
18.45(8.4+10.05)	64.0	1181	0.1181

Area Calculation For A & B

(A) $\frac{64m}{\sin(90^\circ)} \times 10.05m = 643.2 m^2$
0.0643.2 Hectares

(B) $\frac{64m}{\sin(90^\circ)} \times 8.4m = 537.6 m^2$
537.6 Hectares

Total Forest Area = 0.1181Hectares

Legend	
	Tower Location
	Forest Area DGPS Coordinates
	Road
	Transmission Line Corridor In Forest area
	Transmission Line Corridor In Non-Forest area



PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	GHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:-	05/10/2019
DRAWING NO.-	GTL/A-G/06

**GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
LOC BETWEEN AP 105-104/1, NEAR VILLAGE- SHANKARPUR, FIROZABAD, FIROZABAD**

Forest Area DGPS Coordinates			
AREA	SL. NO.	LATITUDE	LONGITUDE
A	1	27°04'36.05"	78°20'29.78"
	2	27°04'36.81"	78°20'31.13"
	3	27°04'37.69"	78°20'30.514"
	4	27°04'37.20"	78°20'29.889"
	3	27°04'37.51"	78°20'29.22"
	4	27°04'37.08"	78°20'29.054"

AREA PROPOSED FOR DIVERSION	
Forest Area (m2)	Forest Area (ha.)
1536	0.1536

Formula of Area Calculation

$$\text{Area} = \sqrt{p(p-a)(p-b)(p-c)}$$

Where p is half the perimeter, or $a+b+c/2$

$$p = 23.279 + 20.591 + 14.001 / 2 = 28.9355$$

$$\text{Area} = \sqrt{(28.9355 * 5.6565 * 8.3445 * 14.9345)} = 142.8$$

$$p = 37.751 * 23.279 * 35.613 / 2 = 48.3215$$

$$\text{Area} = \sqrt{(48.3215 * 10.5705 * 25.0425 * 12.7085)} = 403.1$$

$$p = 44 + 35.613 + 36.395 / 2 = 58.004$$

$$\text{Area} = \sqrt{(58.004 * 14.004 * 22.391 * 21.609)} = 626.9$$

$$p = 36.395 + 32.104 + 22.925 / 2 = 45.712$$

$$\text{Area} = \sqrt{(45.712 * 9.32 * 13.608 * 22.787)} = 363.4$$

$$\text{Total Area } 142.8 + 403.1 + 626.9 + 363.4 = 1536.2 \text{ m}^2$$

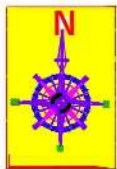
$$0.1536 \text{ Hectares}$$

PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	GHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:-	05/10/2019
DRAWING NO.-	GTL/A-G/26

LOC-104/1

64 M

AP105



Legend

- Tower Location
- Forest Area DGPS Coordinates
- Transmission Line Corridor In Forest area
- Transmission Line Corridor In Non-Forest area

**GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
LOC BETWEEN AP 105-104/1, NEAR VILLAGE- SHANKARPUR, FIROZABAD,FIROZABAD**

Forest Area DGPS Coordinates			
AREA	SL. NO.	LATITUDE	LONGITUDE
A	1	27°04'37.08"	78°20'29.054"
	2	27°04'37.51"	78°20'29.22"
	3	27°04'37.20"	78°20'29.889"
	4	27°04'37.69"	78°20'30.514"
	5	27°04'38.66"	78°20'29.83"
	6	27°04'37.90"	78°20'28.47"

AREA PROPOSED FOR DIVERSION	
Forest Area (m2)	Forest Area (ha.)
1434	0.1434

Formula of Area Calculation

$$\text{Area} = \sqrt{p(p-a)(p-b)(p-c)}$$

Where p is half the perimeter, or $a+b+c/2$



$$p = 39.154 + 23.892 + 44.001 / 2 = 53.5235$$

$$\text{Area} = \sqrt{(53.5235 \times 14.3695 \times 29.6315 \times 9.5225)} = 465.84$$



$$p = 29.752 + 14.001 + 23.892 / 2 = 33.8225$$

$$\text{Area} = \sqrt{(33.825 \times 4.0705 \times 19.8215 \times 9.9305)} = 164.62$$



$$p = 45.101 + 22.925 + 35.399 / 2 = 51.7125$$

$$\text{Area} = \sqrt{(51.7125 \times 6.6115 \times 28.7875 \times 16.3135)} = 400.70$$



$$p = 20.591 + 45.101 + 39.155 / 2 = 52.4235$$

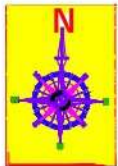
$$\text{Area} = \sqrt{(52.4235 \times 31.8325 \times 7.3225 \times 13.2685)} = 402.66$$

Total Area $465.84 + 164.62 + 400.70 + 402.66 = 1433.82 \text{ m}^2$
0.1434 Hectares

LOC-104/1

64 M

AP105



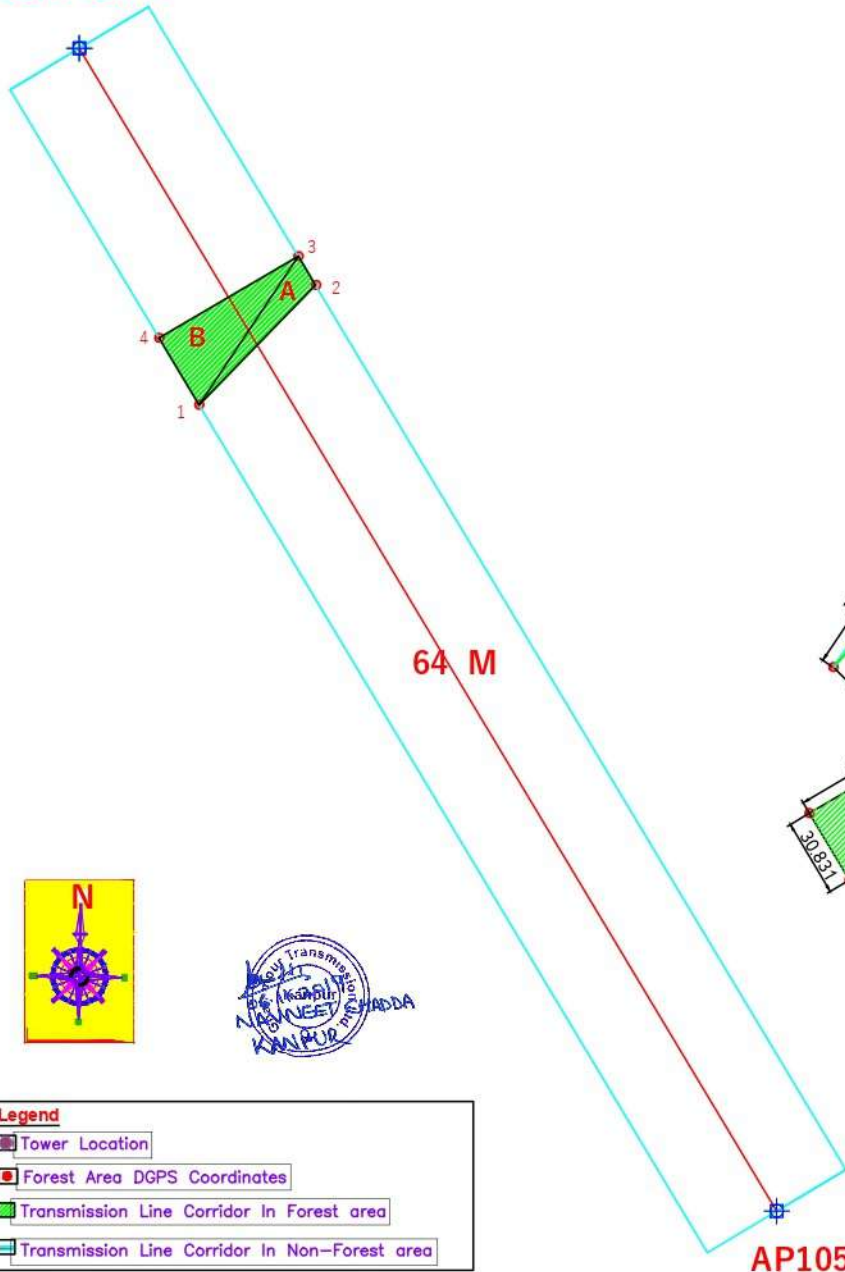
Legend

- Tower Location
- Forest Area DGPS Coordinates
- Transmission Line Corridor In Forest area
- Transmission Line Corridor In Non-Forest area

PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	GHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:-	05/10/2019
DRAWING NO.-	GTL/A-G/26

**GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
LOC BETWEEN AP 105-104/1, NEAR VILLAGE- SHANKARPUR, FIROZABAD,FIROZABAD**

LOC-104/1



Forest Area DGPS Coordinates			
AREA	SL. NO.	LATITUDE	LONGITUDE
A	1	27°04'41.66"	78°20'24.98"
	2	27°04'43.23"	78°20'26.62"
	3	27°04'43.61"	78°20'26.359
	4	27°04'42.51"	78°20'24.405"

AREA PROPOSED FOR DIVERSION	
Forest Area (m2)	Forest Area (ha.)
1413	0.1413

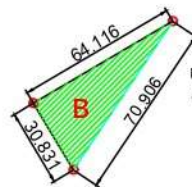
Formula of Area Calculation

Area = $\sqrt{p(p-a)(p-b)(p-c)}$
Where p is half the perimeter, or $a+b+c/2$



$$p = 70.906 + 66.216 + 13.299 / 2 = 75.2105$$

$$\text{Area} = \sqrt{(75.2105 * 4.3045 * 8.9945 * 61.9115)} = 424.59$$



$$p = 70.906 + 30.831 + 64.116 / 2 = 82.9265$$

$$\text{Area} = \sqrt{(82.9265 * 52.095 * 18.8105 * 12.0205)} = 988.33$$

Total Area $424.59 + 988.33 = 1412.92 \text{ m}^2$
0.1413 Hectares

Legend	
	Tower Location
	Forest Area DGPS Coordinates
	Transmission Line Corridor In Forest area
	Transmission Line Corridor In Non-Forest area

PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	GHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:-	05/10/2019
DRAWING NO.-	GTL/A-G/26

**GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
LOC BETWEEN AP 105-104/1, NEAR VILLAGE- SHANKARPUR, FIROZABAD, FIROZABAD**

LOC-104/1

Forest Area DGPS Coordinates			
AREA	SL. NO.	LATITUDE	LONGITUDE
A	1	27°04'41.66"	78°20'24.98"
	2	27°04'43.23"	78°20'26.62"
	3	27°04'42.232	78°20'27.347
	4	27°04'41.12"	78°20'25.382"

AREA PROPOSED FOR DIVERSION	
Forest Area (m2)	Forest Area (ha.)
1807	0.1807

Formula of Area Calculation

Area = $\sqrt{p(p-a)(p-b)(p-c)}$
Where p is half the perimeter, or $a+b+c/2$

$$p = 73.877 + 64 + 36.670 / 2 = 87.2735$$

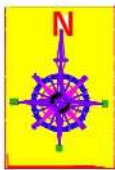
$$\text{Area} = \sqrt{(87.2735 \times 13.3965 \times 23.2735 \times 50.6035)} = 1173.43$$

$$p = 19.738 + 66.368 + 73.877 / 2 = 79.9915$$

$$\text{Area} = \sqrt{(79.9915 \times 60.2535 \times 13.6235 \times 6.1145)} = 633.63$$

$$\text{Total Area } 1173.43 + 633.633 = 1807.06 \text{ m}^2$$

$$0.1807 \text{ Hectares}$$



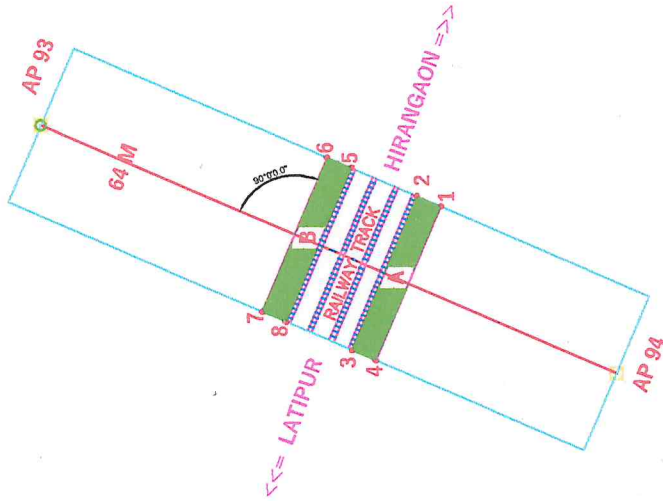
64 M

AP105

Legend	
	Tower Location
	Forest Area DGPS Coordinates
	Transmission Line Corridor In Forest area
	Transmission Line Corridor In Non-Forest area

PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	GHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:-	05/10/2019
DRAWING NO.-	GTL/A-G/26

**GEO REFERENCE MAP OF PROPOSED 765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
RAILWAY CROSSING IN BETWEEN HIRANGAON - LATIPUR (AP93 - AP94) , TUNDLA,FIROZABAD**



Area Calculation For A & B

$$(A) \frac{64m}{\sin(90^\circ)} \times 10m = 640 \text{ m}^2 = 0.0640 \text{ Hectares}$$

$$(B) \frac{64m}{\sin(90^\circ)} \times 10m = 640 \text{ m}^2 = 0.0640 \text{ Hectares}$$

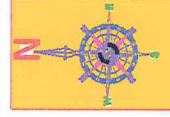
Total Forest Area = 0.1280 Hectares

Legend

- Tower Location
- Forest Area DGPS Coordinates
- Railway track
- Transmission Line Corridor In Forest area
- Transmission Line Corridor In Non-Forest area

Forest Area DGPS Coordinates			
AREA	SL NO.	LATITUDE	LONGITUDE
A	1	27°10'56.67"	78°17'50.79"
	2	27°10'56.97"	78°17'50.93"
	3	27°10'57.73"	78°17'48.77"
	4	27°10'57.44"	78°17'48.63"
B	5	27°10'57.78"	78°17'51.31"
	6	27°10'58.08"	78°17'51.45"
	7	27°10'58.85"	78°17'49.29"
	8	27°10'58.55"	78°17'49.15"

AREA PROPOSED FOR DIVERSION			
Forest Length(m)	R.O.W Corridor (M)	Forest Area (m2)	Forest Area (ha.)
20 (10 + 10)	64	1280	0.1280



SCALE
0 5 10 20 30 40 METERS

CHATAMPUR TRANSMISSION LIMITED
 FIROZABAD

PROJECT:-	765KV S/C AGRA-GREATER NOIDA TRANSMISSION LINE
User Agency:-	CHATAMPUR TRANSMISSION LIMITED
Dwg. Title:-	765KV S/C AGRA-GREATER NOIDA PROPOSED TRANSMISSION LINE ROUTE (IN FIROZABAD FOREST DIVISION)
DATE:- 16/11/2019	DRAWING NO.-GTL/A-G/77