

Abstract

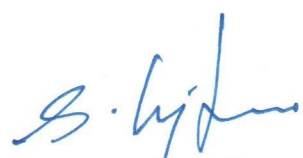
Name of work: Raising Compensatory Afforestation plantation total 0.0836 ha for Diversion of 0.0418 ha of Protected Forest Land for laying of 90 mm Dia MDPE Natural Gas Pipeline from M/s. Dhodia Synthetics, Kharadpada by Gujarat Gas Limited in the U.T. of Dadra and Nagar Haveli and Daman & Diu.

Proposed site: Survey No.: 08 Village: Nana Randha Area: 0.0836 Hectare

Sr. No.	Particulars of Items	Amount in ₹.
1	Nursery Cost	3,595/-
2	Formation Cost	3,738/-
3	Maintenance of plantation for 10 years & Chainlink Fencing work	55,157/-
4	Soil and Moisture conservation work	1,682/-
5	Dressing of coppicing from ground level work	7,377/-
Total ₹		71,549/-

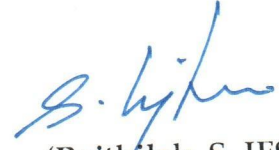

RFO (NR)


Assistant Conservator of Forest (HQ)
Dadra & Nagar Haveli
Silvassa


Deputy Conservator of Forest (T)
Dadra & Nagar Haveli
Silvassa

LAND SUITABILITY CERTIFICATE

This is to certify that 0.0836 ha. of land bearing survey No. 08 of village Nana Randha of Dadra & Nagar Haveli is identified for Compensatory Afforestation in lieu of Diversion of 0.0418 ha. of Protected Forest Land for laying of 90 mm. Dia MDPE Natural Gas Pipeline from M/s. Dhodia Synthetics, Kharadpada by M/s. Gujarat Gas Limited in the U.T. of Dadra and Nagar Haveli and Daman & Diu.



(Rajthilak. S, IFS)

Place : Dadra & Nagar Haveli

Deputy Conservator of Forests, Territorial
Dadra & Nagar Haveli

Date : /02/2022

Silvassa.

NORMS FOR RAISING OF NURSERY
(In Terms of Mandays)
For 10,000 Seedlings
Size of Polythene Bags 20cm x 30 cm
for 1 year

for 1 year						
Sr. No.	Particular	Quantity	Value in ₹	M.D.	Rate per Mandays	Amount in ₹
1	Labor Charges for cleaning of the site and erection Chainlink fencing	Departmental Chainlink & Poles		30	351.3	10539.00
2	Collection of quality Earth	12.70 Cu. Mtr	2032.00	131.94	351.3	46350.52
3	Collection of Manure	12.70 Cu. Mtr	5080.00		351.3	
4	Collection of Sand	12.70 Cu. Mtr	5080.00		351.3	
5	Mixing of all above three ingredient after pulverizing			22	351.3	7728.60
6	Filling of the polythene bags			78	351.3	27401.40
7	Preparation of beds with wooden materials shifting and arrangement of polythene bags.			24	351.3	8431.20
8	Collection of seeds and sowing			6	351.3	2107.80
9	Watering for 150 days and weeding works. Feb-June			300	351.3	105390.00
10	Weeding and application of pesticide including rearranging as per requirment for 5 months July-Nov.			200	351.3	70260.00
11	Shifting of 10000 polythene bags and rearranging for 5 Months and transplanting June to Nov.			24	351.3	8431.20
12	Watering, weeding and rearranging works from December - June next Season 7 months			400	351.3	140520.00
13	Polythene bag size 20x30 C.m/250 to 200 Guage (150 No/kg) 10.66 Kg for 1600 bags 130 per kg pb			8.3	351.3	2915.79
14	Cost of Fungicide and pesticides and other medicines	lump sum Rs. 500/-		5.41	351.3	1900.53
Total				1229.7		431976.05

10000 Seedlings :- 431976.05

1 Seedling : - 43.00

Cost per seedlings = 1000 X ₹:- 43 = 43000/- % 351.30

Cost per 0.0836 Hect = 43000 X 0.0836 = ₹ 3595/-

RFO(NR)

ACF(HQ)

DCF(T)

Formation Cost for Raising Plantation in 1 hect. for 1000 seedling per Hect.

Rate per Mandays in ₹ 351.30

Sr. No.	Particulars	1000 Seedling	Amount in ₹
		M.D.	
1	Site Cleaning	10	3513.00
2	Alignment	2.2	772.86
3	A) Pit Digging (45cm x 45cm x 45cm)	37	12998.10
4	Transportation plantation (12cm x 25cm x polythene bag)	17	5972.1
5	Weeding		
	A) 1st Weeding	12.5	4391.25
	B) 2nd Weeding	10.5	3688.65
	C) 3rd Weeding	10	3513.00
6	Application & Fertilizer	1.5	526.95
7	Watch & Ward	15	5269.50
Total		115.7	40645.41
8	Any other operation		
9	Misc. 10% Contigent of (Above all)	11.57	4064.54
Grand Total		127.27	44709.95

Formation Cost for 1 Hect Plantation = 44710/-

Formation Cost for 0.0836 Hect = 44710 X 0.0836 = ₹ 3738/-

RFO (NR)

ACF(HQ)

DCF(T)

ABSTRACT

Compensatory Afforestation plantation

A) Plantation

Sr No.	Particulars of work	Year of implementation	Plantation			Nursery			Total Amount ₹	Remarks
			MD	Rate per Mandys Considering 10%	Amount ₹	MD	Rate per Mandas Considering ₹ (10%)	Amount ₹		
1	I st year Maintenance	2023-24	117.7	351.30	41348	39.35	351.30	13824	55172	Mandays & Ruppes decimal converted to round off
2	II nd year Maintenance	2024-25	65.78	386.43	25419	29.51	386.43	11404	36823	
3	III rd year Maintenance	2025-26	62.48	425.07	26558	19.68	425.07	8365	34924	
4	IV th year Maintenance	2026-27	59.29	467.57	27722	0		0	27722	
5	V th year Maintenance	2027-28	59.29	514.32	30494	0		0	30494	
6	VI th year Maintenance	2028-29	59.29	565.75	33543	0		0	33543	
7	VII th year	2029-30	59.29	622.32	36897	0		0	36897	
8	VIII th year	2030-31	49.5	684.55	33885	0		0	33885	
9	IX th year Maintenance	2031-32	49.5	753	37274	0		0	37274	
10	X th year Maintenance	2032-33	49.5	828.3	41001	0		0	41001	
	Total Amount ...		631.6		334142	88.54		33593	367735	
B	Chainlink Fencing work Average per 1 Hect 400 Rmt					400		730.1	292040	Rate Analysis & Rates of S.O.R of taken from Estimate
							Grand Total		659775	

Maintenance Cost for 10 Year for 1 Hect Plantaion 659775

Maintenance Cost for 10 Year for 0.0836 Hect Plantaion 659775 X 0.0836

₹ 55157/-

RFO(MR)

ACF(HQ)

DCF(T)

Rate Analysis

Sr No	Particulars	MD
01	Number of maximum trenches in 1 ha= 78	-
02	MD per trench is (₹ 143.64/₹ 351.30)	0.40
03	MD per 1 ha (78 x 0.40)	31.2
	Say .	31

Cost per 1 ha = 31 MD

Cost per 1 Hect = 31 x 0.0836= 3.00 MD

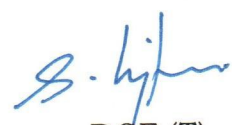

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Dadra & Nagar Haveli
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Estimate for Soil and moisture conservation Work

Sr No	MD per ha	Total area in ha	Total MD	Rate per MD (₹)	Amount ₹
01	31	0.0836	3.09	351.30	1086/-
5% Contingency					55/-
Total Amount ₹....					1141/-


RFO (NR)


ACF (HQ)


DCF (T)

ABSTRACT SHEET OF ESTIMATE

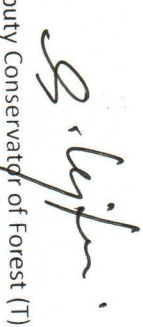
Name of work: Providing Chainlink Fencing (Cost for 1:00 Km/1000 Rmt) to P.F. Boundary

Sr No	Description of items	Qty	Unit	Rate	Rate with 1% Labour cess	Amount	GSR-2015-16 Valsad Reference
01	Providing <u>EARTHWORK IN EXCAVATION</u> by mechanical means (Hydraulic Excavator) Manual means over areas (Exceeding 30 cms in depth 1.5 meters in width as well as 10 sq mtr on plan including disposal of excavated earth lead up to 50 meters and lift up to 1.5 mtr disposed earth to be leveled and neatly dressed in All kinds of soil	50.00	One Cubic Meter	122.00	123.22	6161.00	GSR Sr No 01 Code 04B001A
02	Providing and fixing G.I Chainlink fencing including material & labour with chainlink of size 150 mm x 150mm x 4mm (8G) wire & 1.50m wide with R.C.C. pole (10cm x 10cm) & 2.00m long/height provided at 2.50m CC distance including fixing of 'J' hooks (6 nos) in each pole complete) Excavation for pit & C.C to be paid separately) 1x1000.00x1.50=1500.00 Sq.m	1500.00	One Sq m	301.60	304.616	456924.00	Rate Analysis
Certificate :- This is to certify that the rates adopted in the estimates are from GSR for the Year 2015-16 and rate analysis for consolidated items prepared based on the same GSR-2015-16 (Valsad)		Total	₹			463085.00	
		Add 5 % Contingencies	₹			23154.25	
		Total	₹			486239.25	
		Say	₹			486239.00	

(Cost for 1 Hect = Average 400 Rmt X 486.24 = 194496/-)

 Junior Engineer (FD)
 RFO (NR)

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Estimate for Dressing of coppicing species from ground level work

Sr No	Particulars of work	MD	Rate per MD	Amount ₹
01	Dressing of coppicing species from ground level	20	351.30	7026.00
	Contingency @ 5%			351.00
	Total ₹			7377.00


RFO (NR)


ACF (HQ)

DCF (T)

RATE ANALYSIS

As Per GSR Valsad (2015-16)

NAME OF WORK:-

Item No.

Providing material and labour for fixing **G.I. chainlink fencing** (Size:150mm x 150mm x 8 gauge 4mm) 2.00 Meter height with 2 line wire of 4mm dia (top & Bottom) with R.C.C. Poles (100mm x 100mm) & 2.50 Meter height with supporting poles where ever necessary as per side condition using P.C. Wire 3mm dia vertical bars 04 Nos. including making fixing holes of 1mm dia 6 Nos. and pole should be casted of C: C: M-20 mix, provided at 2.50 meter c/c distnsnce including fixing of G.I. 'J' hook hot drip (15cm/6"long) 6mm dia with nut and 02 Nos. of G.I. Washers with every " J " Hook. 6 Nos. in each pole etc. complete (Poles,chainlink, 'J' Hooks, G.I. Washers should be of good & approved quality) as directed.

Details of Cost :- For 30.00 x 2.00 = 60.00 Sq.m

Sr.No.	Item	Qty.	Rate	Unit	Amount
1	Supply of G.I. Chainlink (150mm x 150mm x 8 Gauge). 1 x 30.00 x 2.00 = 60.00 Sq.mt. (M. R.)	60.00	125.00	Sq.mt.	7500.00
2	Supply of R.C.C. Poles Having c/s 0.10 x 0.10m & 2.50Meter long of C.C. mix M-20 qty. = 13 x 2.50 x 0.10 x 0.10 = 0.325m (DSR Page No. 257, code No. 16.15.1)	0.325	20469.55	Cu.Mtr.	6652.60
3	Supply of 'J' Hook (6") with G.I. Washer 13 x 06.00 = 78.00 Nos (GSR Page No. 7, Sr.No.246, code No. M226)	78.000	8.80	Each	686.40
4	Carriage of Steel Chainlink (15km)	0.141	806.56	M.T.	113.72
	(a) Chainlink 1x45.00 x2.25kg/sq.m = 135.00 kg. (b) 'J' Hook = 06.00 kg. Total = 141.00 kg. i.e. 0.141 M.T. Consider lead = 100 km 1st 5.00 km = 220.41km Rem 90 km x 6.17 = 586.15 Total = 806.56 (GSR Pg.No.39, Sr. No.3.2.7)				
5	Carriage of R.C.C. Poles 13 Nos x 0.10 x 0.10 x 2.00 = 0.26 Cu.m. Weight of PCC = 24 KN/Cu.mt i. e. 2400 Kg./ Cu.mt 0.26 Cu.mt. x 2400Kg/Cu.mt = 624 kg i.e. 0.624 Mt Consider lead = 50 km 1st 5.00 km = 210.41km Rem. 40 km x 4.57 = 205.65 Total = 416.06 (DSR Pg.No.39, It. No.3.2.6)	0.624	416.06	M.T.	259.62
6	Labour charges for fixing of G.I. Chainlink with R.C.C. Pole including fixing of 'J' Hook etc. complete at site of work.				
	(i) Black smith 1 st class	02 Nos	303.00/No.		606.00
	(ii) Mistry (Welder)	02 Nos	294.40/No		588.80
	(iii) Fitter	01 Nos	294.40/No		249.40
	(iv) Hole driller	01 Nos	294.00/day		294.00
	(v) Labour	04 Nos	286.00/No		1144.00
	(GSR Pg. No. 32, it No. 3, 30 26, 40, 21)			Total	18094.54
	Cost for 1.00 sq.mt = Rs.18094.54/60.00 sq.mt.				301.57
			Say Total....Rs....		301.60/- Sq.mt.

RFO (NR)

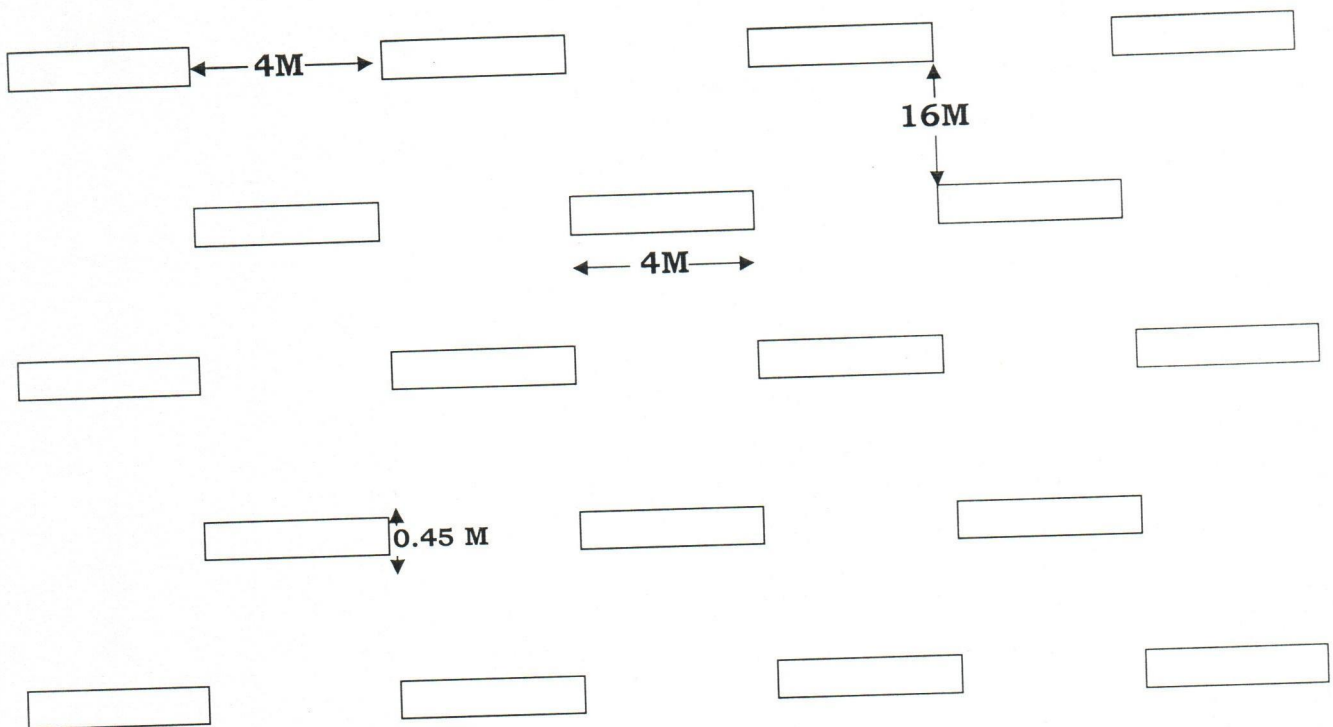
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Silvassa

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Silvassa

STAGGERED CONTOUR TRENCHING

c/51



MEASUREMENT SHEET

- **Length of each trench:** 4 Meter.
 - **Dimensions:** 4 Mt. x 0.45 Mt. x 0.30 Mt. (L x B x H)
 - **Horizontal distance between two trenches:** 4 Meter.
 - **Vertical distance between two rows:** 16 Meter.
 - **Number of maximum trenches in one hectare:** 78.
- As per the G.S.O.R., Page no.: 5, item no.: 3, Code: 04 B001C.
 Rate of earth work in hard murrum is Rs. 266.00 per cubic meter.
 For preparation of trench of following specification
 4M x 0.45M x 0.30M

$$\begin{aligned} \text{Volume} &= L \times B \times H \\ &= (4.0 \times 0.45 \times 0.30) \text{ M}^3 \\ &= 0.54 \text{ cubic meter.} \end{aligned}$$

$$\begin{aligned} \text{Therefore, expenditure per trench} &= \text{Rs. } 266.00 \times 0.54 \\ &= \text{Rs. } 143.64 \end{aligned}$$

The rate per MD is Rs. 307.90.

Therefore, MD per trench is $\text{Rs. } 143.64 / \text{Rs. } 307.90 = 0.47 \text{ MD.}$

RFO (NR)

C/49

Species to be planted

Sr.no	Local Name	BotanicalName	Nos of Plants
1	Amla	<i>Emblica officinalis</i>	100
2	Aritha	<i>Sapindus emarginatus</i>	70
3	Beheda	<i>Terminalia bellerioa</i>	100
4	Dandosi	<i>Dalbergia lanceolaria</i>	50
5	Goradiyo	<i>Acacia senegal</i>	70
6	Jambu	<i>Syzygium cumini</i>	100
7	Karanj	<i>Pongamia pinnata</i>	50
8	Limada	<i>Azadirachta indica</i>	150
9	Kinai	<i>Albizzia procera</i>	100
10	Kanti	<i>Acacia ferruginea</i>	50
11	Mahudo	<i>Madhuca indica</i>	100
12	Papda	<i>Holoptelea integrifolia</i>	50
13	Siras	<i>Albizia odoratissima</i>	25
14	Shivan	<i>Gmelina arborea</i>	50
15	Shisham	<i>Dalbergia latifolia</i>	50
16	Sitafal	<i>Anona squamosa</i>	150
17	Umbro	<i>Ficus glomerata</i>	100
18	Vilayti amli	<i>Pithecellobium dulces</i>	235
			1600

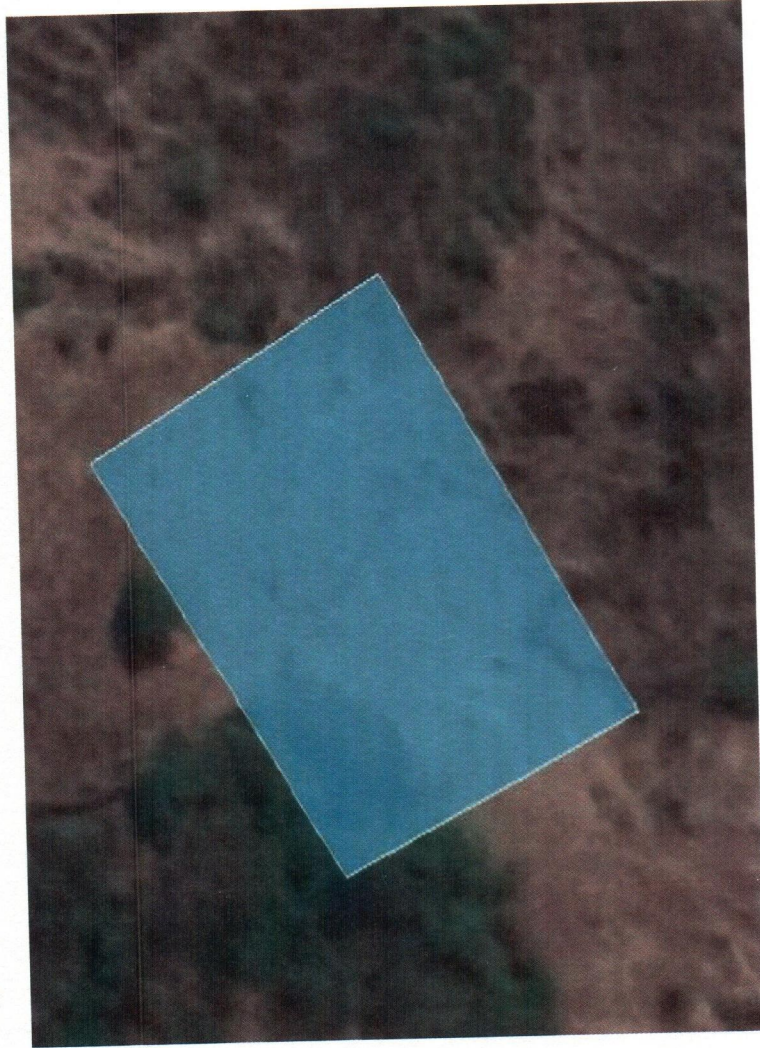

RFO (NR)

DGPS MAP OF FOREST LAND PROPOSED FOR COMPENSATORY AFFORESTATION

Location : Dadra Nagar Haveli
Village : NANA RANDHA
Survey Number : 8
AREA : 0.0840 H.A

GPS Reading :

1. 20°18'29.96"N 73°9'44.87"E
2. 20°18'29.30"N 73°9'45.30"E
3. 20°18'29.85"N 73°9'46.29"E
4. 20°18'30.57"N 73°9'45.83"E



Prepared By

[Signature]

Surveyor (FD)

Countersigned by

[Signature]

Assistant Conservator of Forest (HQ)

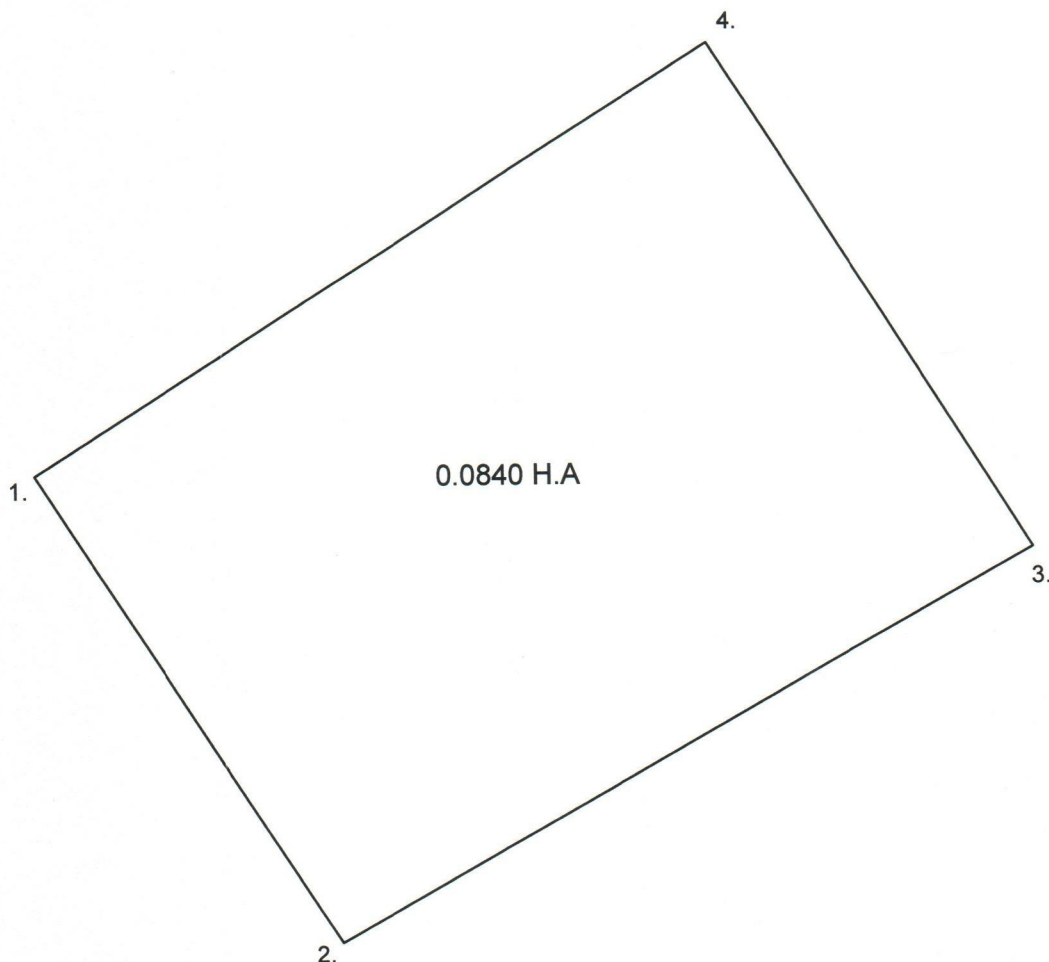
Verified by

[Signature]

Range Forest Officer (NR)

C/75

Geo-Reference Map of Forest Land Proposed For Compensatory Afforestation. *C/71*



1. 20°18'29.96"N 73° 9'44.87"E
2. 20°18'29.30"N 73° 9'45.30"E
3. 20°18'29.85"N 73° 9'46.29"E
4. 20°18'30.57"N 73° 9'45.83"E

[Signature]
**SURVEYOR
FOREST DEP.**

[Signature]
Range Forest Officer
Northern Range
Silvassa

