

Date:29/07/2022

To,
Nodal Officer (FCA) - Forest Department,
Sanjenthong, Imphal,
Manipur.

Subject :Hard Copy Submission (Five Set) of Forest Proposal for Diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong - Sajik - Aigejang - Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

As per the above subject we are hereby submitting the hard copy of Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong - Sajik - Aigejang - Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

We are hereby submitting total 05 sets for your approval and necessary actions.



(Daljit Singh)

AE (CIV)

84 RCC / 25 BRTF (GREF)

C/O 99 APO

Imphal, Manipur

AEE/AE (Civ)

for Commander

E-MAIL

Headquarters
25 Border Roads Task Force
Pin – 930 025
C/o 99 APO

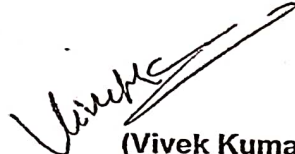
2108/AWP/1/8 IE2

HQ CE (P) Sewak
Pin- 931714
C/o 99 APO

28 Jun 2022

ANNUAL WORKS PLAN 2022-23 : MISSION 15000 CR @ BRO

1. Reference HQ CE (P) Sewak letter No.24000/RE-BE/2022-23/30/E2 Plg dated 18 Jun 2022.
2. Shri Daljit Singh, AE (Civ), (Mob No.6280934668) of 84 RCC deployed with this Task Force is hereby nominated as Nodal Officer for each case of FC/LA.
3. Submitted for information please.


(Vivek Kumar)
AEE (Civ)
CCO
For Commander




AEE/AE (Civ)
for Commander




AEE/AE (Civ)
for Commander



GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
BORDER ROADS ORGANISATION
PROJECT SEWAK (GREF)

Tel/Fax No. 03870 – 265467

SERVICE CERTIFICATE

1. Certified that GO-004694H AE (CIV) DALJIT SINGH is serving with Min of Defence "GENERAL RESERVE ENGINEER FORCE" since 29 Nov 1991, which is an integral part of Armed Forces under Ministry of Defence as per Govt of India, Cabinet Secretariat Notification No 79 dated 09 Jan 2015 and presently posted in 84 RCC (GREF), C/o 25 BRTF (GREF).
2. The above officer is hereby authorized to sign all forest clearance documents pertain to the following roads:-
 - (a) Chakpikarong-Sajik-Tampak-Aigong-Khongtal Road.
 - (b) Chakpikarong-Mombi-Joupi Road.
 - (c) Khemdo-Phaisanjang Road.



File No. 103/GEN/ 19 /E1

Station: C/O 99 APO

Dated: 23 Jun 2022

AEE/AE (Civ)/Capt/AAO
Second-in-Command
For Officer Commanding



AEE/AE (Civ)




For Commanding

Scanned with CamScanner



AEE/AE (Civ)

For Commanding

पहचान कार्ड		IDENTITY CARD	
	<p>वैयक्तिक नं. PERSONAL NO GO - 004 694 H</p>		
	<p>पुरा नाम NAME IN FULL DALJIT SINGH</p>		
<p>सेवा SERVICE BRO</p>	<p>पद RANK AE (Civ)</p>		
<p>जारी करने वाले अफसर की मोहर और हस्ताक्षर STAMP AND SIGNATURE OF ISSUING OFFICER</p>			
<p>सामान्य रिजर्व इंजीनियर बल GENERAL RESERVE ENGINEER FORCE</p>			

वैयक्तिक नं. PERSONAL NO GO - 004 694 H	पूरा नाम NAME IN FULL DALJIT SINGH
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संवा SERVICE
BRO

जारी करने वाले अफसर की पांछर और हस्ताक्षर
STAMP AND SIGNATURE OF ISSUING OFFICER

सामान्य रिजर्व इंजीनियर बल GENERAL RESERVE ENGINEER FORCE



ALL/ALC (NW)

AIE/AE (Civ)

for Commands:

Justification for locating the Project in Forest Land

Project Name: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

The Ministry of Defence, government of India has decided to take up the widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal to NHSL Specifications in the state of Manipur for augmentation of capacity for safe and efficient movement of traffic by upgrading to Two Lane with paved shoulder configuration based on the traffic demand.

The total length of the project stretch selected for up-gradation is 19.5 KM in this package from which road is passing through forest area in Chandel forest division. The proposed widening requires diversion 22.045 Ha. in Chandel forest division. Therefore the widening of this stretch requires forest clearance from Ministry of Environment, Forest and Climate change (GoI).

The diversion of forest area has been limited to the minimum that satisfies the National Highway standards. As the project road is passing through the middle of forest area, bypassing the forest area is not possible. Alternative has been examined and found that no better option is available. The widening has been limited to non-forest areas where the road is passing/ abutting the forest land only on one side of the existing road, to reduce the requirement of forest area diversion.

Date :

Place : Imphal, Manipur




(Daljit Singh)

AE (CIV)

84 RCC / 25 BRTF (GREF)

C/O 99APO

Imphal, Manipur

AE/AE (CIV)

for Command

Justification Regarding FRA certificates work is under process

Project Name: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

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The diversion of forest area has been limited to the minimum that satisfies the National Highway standards. As the project road is passing through the middle of forest area, bypassing the forest area is not possible. Alternative has been examined and found that no better option is available. The widening has been limited to non-forest areas where the road is passing/ abutting the forest land only on one side of the existing road, to reduce the requirement of forest area diversion.

We are working on the NOC from Collector/ FRA certificate.

Date :

Place : Imphal, Manipur




(Daljit Singh)

AE (CIV)

84 RCC / 25 BTRF (GREF)

C/O 99APO

Imphal, Manipur

AE/AE (CIV)

for Command

**Undertaking to bear cost of compensatory afforestation / penal
compensatory afforestation cost**

Project Name: Forest Proposal for diversion of 22.045 ha of forest land for widening/
improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to
19.5 KM) to NHSL Specifications in the state of Manipur.

This is to certify that the project authority agrees to deposit the sum
against the compensatory afforestation / penal compensatory afforestation
of forest land (22,045 Ha) required for widening/improvement of existing
road Chakpikarong – Sajik – Aigejang – Khongtal section in the state of
Manipur under Chandel Forest Division.

Date :

Place : Imphal, Manipur




(Daljit Singh)

AE (CIV)

84 RCC / 25 BRTF (GREF)

C/O 99APO

Imphal, Manipur

AEE/AE (Civ)

for Commande

Undertaking to bear cost of NPV / additional NPV

Project Name: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

This is to certify that as per the guidelines for diversion of forest land for Non-forest purpose by the Ministry of Environment, Forest and climate change, GoI Circular No. - 5-1/98-FC(PT-II) Dated 18/02/2003, the project authority agrees to deposit the sum against the Net Present Value / additional Net Present Value, of forest land (22.045 Ha) required for widening/improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal section in the state of Manipur under Chandel Forest Division

Date :

Place : Imphal, Manipur




(Daljit Singh)

AE (CIV)

84 RCC / 25 BRTF (GREF)

C/O 99APO

Imphal, Manipur

AE/AE (CIV)

for Command

Undertaking to bear cost of extraction of trees

Project Name: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

This is to certify that as per the guidelines for diversion of forest land for Non-forest purpose by the Ministry of Environment, Forest and climate change, the project authority will bear the cost of the trees to be extracted and other allied works under the project affected due to project implementation

Date :

Place : Imphal, Manipur




(Daljit Singh)

AE (CIV)

84 RCC / 25 BRTF (GREF)

C/O 99APO

Imphal, Manipur

AEE/AE (CIV)

for Commander

FORM - A

Form for seeking prior approval of Central Government under section 2 of the Forest(Conservation) Act,1980 for
Diversion of fresh forest area

PART - I

(To be filled up by User Agency)

A. General Details**A-1. Project Details**

(i). Proposal No. : FP/MN/ROAD/153434/2022

(ii). Name of Project for which Forest Land is required : Forest Proposal for widening / improvement of existing road chakpikarong - sajik - Aiquejang (0 to 19.5 KM) to NHSL specification under project sewak in the state of Manipur

(iii). Short narrative of the proposal and Project/scheme for which the forest land is required : Forest Proposal for widening / improvement of existing road chakpikarong - sajik - Aiquejang (0 to 19.5 KM) to NHSL specification under project sewak in the state of Manipur

(iv). State : Manipur

(v). Category of the Proposal : Road

(vi). Shape of forest land proposed to be diverted : Linear

(vii). Estimated cost of the Project(Rupees in lacs) : 15400

(viii). Area of forest land proposed for diversion(in ha.): 22.045

(ix). Non-forest land required for this project(in ha.): 12.2285

(x). Total period for which the forest land is proposed to be diverted(in years): NIL

A-2. Details of User Agency

(i). Name : 84 RCC (GREF)

(ii). Address1 : 84 RCC (GREF)

(iii). Address2 : NIL

(iv). State : Manipur


AEE/AE (Civ)
for Commander

(v). District : Ukhrul

(vi). Pin : 795142

(vii). Landmark : Near NH 202

(viii). Email address : oc-84rcc@bro.gov.in

(ix). Landline Telephone No. : 0-

(x). Fax No. : 0-

(xi). Mobile No. : 9862507095

(xii). Website (if any) : NIL

(xiii). Legal status of User Agency : Central Government

A-3. Details of Person Making Application

(i). First Name: Abhishek

(ii). Middle Name: NIL

(iii). Last Name: Goel

(iv). Gender: Male

(v). Designation: Officer Commanding

(vi). Address 1: 84 RCC GREF93829

(vii). Address 2: NIL

(viii). State: Manipur


(ix). District: Ukhrul

(x). Tehsil: Ukhrul Central Sub-Division

(xi). Pin: 795142

(xii). Landmark: NIL

(xiii). Email Address: oc-84rcc@bro.gov.in



AEE/AE (Civ)



(xiv). Landline Telephone No.: 0-

(xv). Fax No.: NIL

(xvi). Mobile No.: 9382936989

(xvii). Copy of documents in support of the competence/authority of the person making this application to make application on behalf of the User Agency: 

B. Details of land required for the Project

B-1. Details of proposal seeking prior approval of Central Government under the Act for diversion of forest land for the Project already submitted in the past

List of proposal submitted in Past							
S.no	Proposal Status.	Proposal No.	Moef File No.	Area Proposed for Diversion(Ha.)	Area Diverted(Ha.)	Date of In-Principle Approval	Date of Final Approval
NIL							

B-2. Details of forest land proposed to be diverted

B-2.1 Details of Divisions involved

Details of Divisions involved			
S.no	Division Name	Forest Land(ha.)	Non-Forest Land(ha.)
1.	Chandel forest division	22.045	12.2285
Total		22.045	12.2285

B-2.2 Details of Districts involved

District wise breakup			
S.no	District Name	Forest Land(ha.)	Non-Forest Land(ha.)
1.	Chandel	22.045	12.2285
Total		22.045	12.2285

B-2.3 Village wise breakup

Villages wise breakup			
S.no	Village	Forest Land(ha.)	Non-Forest Land(ha.)
1	Longja	1.24	6.1886
2	Rungchang	2.125	0.4854
3	Ravalon	2.57	0.4265






Report Part 1

4	Salluk	4.24	1.23
5	Sarang	1.65	0.32
6	Hrighkhu A	1.75	0.26
7	Hrighkhu B	2.02	0.42
8	Kana Khudam	1.45	0.3
9	Gelngai	1.86	0.321
10	Bongpijang	3.14	2.277
Total		22.045	12.2285

B-2.4 Component wise breakup

Component wise breakup			
S.no	Component	Forest Land(ha.)	Non-Forest Land(ha.)
1	Road	22.0449	12.22848
Total		22.0449	12.22848

C. Maps of forest land proposed to be diverted

Division 1. : Chandel forest division		
(i). Area of forest land proposed to be diverted(in ha.) : 22.045		
(ii). Nature of the Project: Linear		
(b). No. of Segments : One		
Segment wise details		
Segments	Segment Area(in ha.)	Kml File of Segments (To view KML file on google the same may be downloaded and then open if in google earth install in your computer).
1.	22.045	 View File
(iii). Copy of Survey of India Toposheet indicating boundary of forest land proposed to be diverted: 		
(iv). Scanned copy of the Geo-referenced map of the forest land proposed to be diverted prepared by using GPS or Total Station: 		

D. Justification for locating the Project in forest land and details of alternatives examined:

(i). Copy of note containing justification for locating the Project in forest land:

(ii). Whether a copy of map indicating location of alternative examine is required to be provided: No



ABE/AE (GFW)

for Command

(a). Reason for not providing such map: Road project

E. Employment likely to be generated

(i). Whether the Project is likely to generate employment?: Yes

(ii). Permanent/Regular Employment(Number of persons): 20

(iii). Temporary Employment(Number of person-days): 20

F. Displacement of People due to the Project, if any.

(i). Whether Project involves displacement?: No

G. Details of Cost-Benefit analysis for the Project

(i). Whether the Project requires Cost-Benefit analysis?: Yes

(a). Copy of Cost-Benefit analysis: 

H. Status of Environmental Clearance

(i). Whether the Project requires Clearance under the Environment (Protection) Act 1986?: No

I. Status of Wildlife Clearance

(i). Whether the Project or a part thereof is located in any Protected Area or their Eco sensitive zone?: No

J. Applicability of special provisions governing Scheduled Areas

(i). Whether the Project or a part thereof is located in a Scheduled Area?: No

K. Status of settlement of rights under the Forest Rights Act, 2006 on the forest land proposed to be diverted

(i). Whether the process for settlement of Rights under the Forest Rights Acts 2006 on the forest land proposed to be diverted has been completed?: No

L. Details of land identified for Compensatory Afforestation

(i). Whether non-forest or Revenue forest land is required to be provided by User Agency?: Not Applicable


AERAE (G)
for Commando



(ii). Whether the area of non-forest land or Revenue forest land required to be provided by User Agency for raising Compensatory Afforestation is less than area of forest land proposed to be diverted
?: Not Applicable

(iii) . Reason for not providing Non-Forest Land: Not Applicable

Additional information Details

Documents		
S.No	Documents	Remarks
NIL		

Print page



Phil
AEE/AE (Civ)
for Commander

Avenue Plantation Scheme

A. Avenue Plantation

There are many trees along the road stretch of proposed Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur will be impacted, for which road side trees have been planned to be planted as a part of avenue plantation.

Project Stretch / Section	Terrain	Section/Segments	Length
Chakpikarong – Sajik – Aigejang – Khongtal	Hilly	0 KM to 19.5 KM	19.5

The road side plantation along this road stretch/ section the state highway/NH are important from its ecological role, economic value and suitability for road sides. The focus is on planting native trees/ shrubs species with ecological importance contributing towards higher GHG sequestration, soil-water conservation, nitrogen fixation etc. Trees species with economic benefits such as flower, fruit and timber value are also given due consideration.

The selection of species is mainly based on

1. IRC : SP - 21 -2009 guidelines on landscaping and tree plantation and
2. The plant species matrix of the guidelines for National Green highway Mission are given due consideration while proposing the species

B. Specification for Plantation

The success of any plantation activity depend on the quality of planting material used .The species indigenous to the region are proposed to be used for plantation for which the forest Department, Manipur and many private nurseries has established in all ranges of the state . Planting material of 2 to 3 years old seedlings will be best suitable for plantation purpose. the nursery selected need to be sustain itself throughout the project period wherein fresh seedling will be created every year for other plantation activities for ensuring contiguity of plantation . Plantation activity would extend for a period of 5(five) years with the first year for plantation. 60 cm pits and the succeeding 4 (four) years for maintenance of the plantation created.




ABE/AE (Giv)
for Commander

The technical specification for planting along the state Highways /Highways are:-

Distance from embankment	1.0 m away from the toe of the embankment
Spacing between plant to plant	(20ft) 6 m depending on local condition
Size of the pits	60*60*60 cm pits
No. of plants per km per row	423
Height of the sapling at time of planting	1.5 to 2 m
Survival percentage of plantation	90 % at any time

For ensuring proper protection to the seedlings, fencing or tree guards (Bamboo) is proposed till the end of maintenance period or till the establishment of the seedlings whichever is earlier. The erection of sing boards showing the species name in local language as well as scientific name is proposed for awareness and education to the public. Depending on the site of plantation it is proposed to create sunken beds of raised beds as the case of may be to ensure maximum survival of the seedlings planted.

The plantation shall be mainly 1 row in the hilly areas on downhill side and with slopes less than 15 degree, with small or medium size seedlings . On the uphill side, broadcasting of seeds of local Broom grass (*Thysanolaena maxima*) along with plantation , by vegetative propagation method if found feasible . In very vulnerable points where landslide rate is very high, soil conservation with plantation may be taken up.

In plain terrain both side of the road shall be planted. In hilly terrain will be 1 row of plantation on downhill side.

- The clear zone along the road is of varied nature depending upon the different embankment heights. Some areas have steep gradients that need intensive slope stabilization treatment in order to increase the stability plant and shrubs cover can also be used.




ARE/AE (GM)
for Commander

C. Categories of Plantation

In Manipur state where availability of land along the road is a constraint or one row on each side of the road stretch/ section may be planted in the plain terrain and in hilly terrain one row on downhill side. The tree species selected invariably have the significance and preferably evergreen in nature, which would ensure no substance leaf fall in winters preventing problem of blockage of road sides drains.

List of tree species which may be planted are mentioned below –

Alstoniascholars - Strong branches, good shade giving, for hot and evergreen and attractive. Medium to large size.

Cassia fistula - moderately fast growing, attractive yellow flowers, good for cold areas. Medium to large in size.

Cassia Siamea - avenue plant, good coppice and produce root-succeeding. Medium size.

Gmelinaarborea - fast growing tree, good coppices, produces good timber wood.

Mangiferaindica - Mango for shade and fruit, warmer areas, Medium size.

Meliaazedarach - evergreen tree for shade and medicine. Small to medium size.

Pongamiapinnata - suitable for dry area is fast growing and strong medium size.

Samaneasaman - rain tree, fast growing, warmer areas, medium to large size.

Spathodeacamoanulata - suitable for warmer area for flowers. Medium to large size.

Syzygiumcumuni - Source of wild edible fruits for travellers, birds can be watched by travellers. Medium size

Tamarindusindica - NTFP source, strong, long lasting. Large size.




AEE/AE (Gt)
for Commander

D. Budget Proposed

The details of cost estimate for activities are as below:

Chakpikarong – Sajik – Aigejang – Khongtal 0 KM to 19.5 KM)

Sr	Proposed Activity	Units	Indicative quantity	Estimated cost required (Lakhs)
Chakpikarong – Sajik – Aigejang – Khongtal (19.5 km)				
1	Cost of seedlings	No's	As per appendix	As per appendix
2	Advance work	KMs		
3	Creation	KMs		
4	Maintenance of plantation	KMs		
5	Fencing or tree guards	No's		
		Total		
Publicity, General awareness, etc. 10%				
Grand total				Rs 36,55,654/-

E. Duration of Project

The duration of the project shall be for 3 (three) years i.e. 2020-2025

F. Mode of implementation

As per National Green Highway Mission Guidelines the project should be implemented by outsourcing to professional plantation agencies (Private, companies, proprietorship, firms and startups etc.)/local SHGs/JFMCs/Cooperation /NGOs and other such organization as per the approved plantation SOR and NGHM. Organization should be empaneled/registered with NGHM if they are liable in this project

G. Conclusion

The avenue plantation along the project road stretch would ensure creation of green corridor which would not only benefit the human community by providing direct and indirect benefits, but also support a wide variety of biodiversity of the nation which have been branded as rare, endangered and threatened. The initiative avenue planting will add value in the global efforts to mitigate and adapt to climate change phenomenon and would directly comprehend the national and state plans on climate change.

Station:

Date: June 2022



(Daljit Singh)
AE (CIV)
84 RCC/25 BRTF (GREF)
C/ O 99 APO
Imphal, Manipur

AEE/AE (CIV)

for Command

Certificate for No Muck disposal Land taken in this project

Project Name: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal(0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur.

This is to certify that no muck disposal land is required for this project. All the muck that will be taken out during construction will be used during the construction of the project road.

Date :

Place : Imphal, Manipur




(Daljit Singh)

AE (CIV)

84 RCC / 25 BRTF (GREF)

C/O 99APO

Imphal, Manipur

AEE/AE (CIV)

for Command

COST BENEFIT ANALYSIS- PACKAGES

NAME OF PROJECT: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur on EPC Mode by NHIDCL

NATURE OF PROPOSAL: Diversion of Forest Land under FCA, 1980 for road project.

PURPOSE- This Cost Benefit Analysis is being undertaken for proposed Diversion of Forest Land being taken for the Development of existing road to for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur on EPC Mode by NHIDCL. Estimated construction cost for Package -4 of project road is 572. 118 Cr.

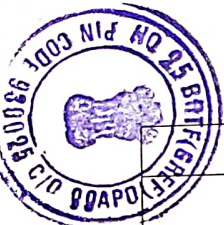
TABLE – A: ESTIMATION OF COST OF FOREST DIVERSION

1	Ecosystem services losses due to proposed forest diversion	1. Proposed forest area to be diverted	22.045	Ha.	
		2. Crown density of the proposed area	0 to 60	%	
		3. Forest Cover/Area in (Ha.)			
		A. Class	Total (area) ha.		
		i. Open forest	14.236		
		ii. scrub forest	4.253		
		iii. Degraded forest	3.556		
		Total	22.045		
		4. As per supreme court's order date 28.03.2008 in WP(c) No.202/1995			
		I. Forest type of the proposed diversion area	Eco-class I		
		ii. Net Present Value (NPV)	Area	Rate per ha. (Lakhs)	Amt (Rs.) in Lakhs
		a. Open forest	14.236	7.3	103.9228
		b. Scrub forest			
		c. Degraded forest			
		Total NPV (a+b+c)			103.9228
2.	Loss of animal husbandry productivity, including loss of fodder @10% of NPV		10% of NPV	Amt (Rs.) in lakhs	
				10.39228	
3.	Cost of human resettlement	Nill			
		The cost of human resettlement for diversion of forest land is nill, However any R&R cost, if required is being			



for Commander

AEE/AE (GM)



4.	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land which would require forest land if these facilities were diverted due to the project.	considered in project clearance cost			
		Nil			
		Electric Lines & Poles, Water pipelines, water tank etc., public facilities which are being affected have Been considered in the budget. Also, the budgets for affected Community Properties resettlement have been considered			
5.	Possession value of forest land diverted	30% of environmental cost (NPV)	30% of NPPV	Amt(Rs.) in Lakhs	
				31.17684	
6.	Cost of suffering to Ousters	The widening and strengthening of the project road is to be undertaken on the adjoining land of the Existing road, so there are no sufferings to ousters.			
7.	Habitat Fragmentation Cost	As per thumb rule: 50% of NPV	50% of NPV	Amt(Rs.)in Lakhs	
				51.9614	
8.	Compensatory afforestation and soil & moisture conservation cost	Compensatory Afforestation cost of 44.09ha land for 22.045 ha proposed forest land diversion is RS.127.864 lakhs @Rs 225- wage rate(Including Rs.11.624 lakhs as soil & moisture conservationcost which is 10% of CA tem work cost for a maintenance period of 10 Years)			
				Amt(Rs.) in Lakhs	71.652
	Total (Table A: Cost of Forest Diversion)			305.7222	Lakh
		Estimated cost of construction for Package road section			Lakhs
		Total Cost (Forest Diversion +Construction Cost)			Lakhs
TABLE B: ESTIMATION OF BENEFITS OF FOREST DIVERSION					
1.	Increase in productivity attribute to the specific project	In lieu of total trees and forest land to be affected due to project, it is proposed to undertake Compensatory afforestation as per Forest (Conservation) Act. The project road will improve connectivity of Manipur state. This will enhance the economic improvement in the Project Districts with additional growth in the GDP due to the project			
2.	Benefit on vehicle maintenance cost due to Operations & maintenance cost due to improvement of the project road	Main objective of this project is to provide all weather connectivity with Improvement of road. Widening and curve improvement under the project will minimize the chances of accidents. Economics benefits will be in terms of saving in travel time and Vehicle operating cost for a period of 30 years. VOC per year for project road (19.5km) = 96 cr. VOC per year for Package 4 Section (approx. 20 km) = 18.56 cr. Saving period =30 years			

AEE/AE (GIV)
for Commander



For Comments



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AEE/AE (G)

for Commander

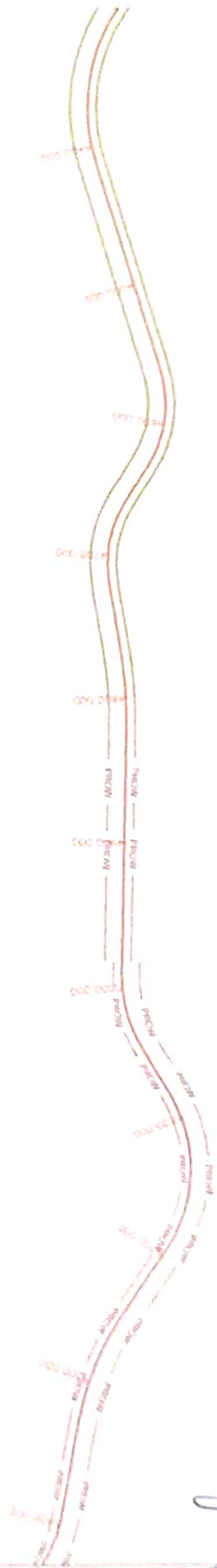
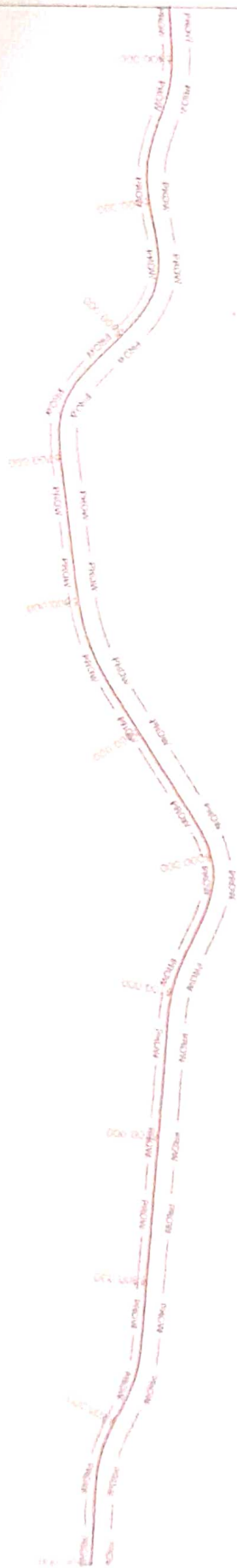


Pin
AEE/AE (Civ)
for Commander



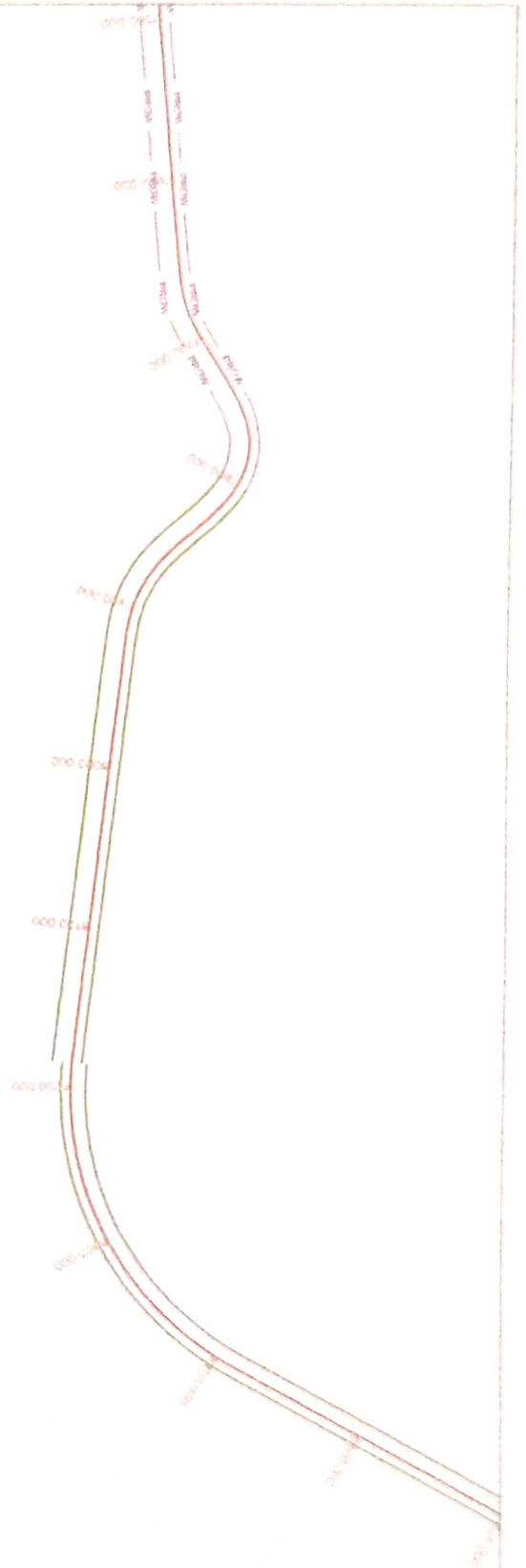
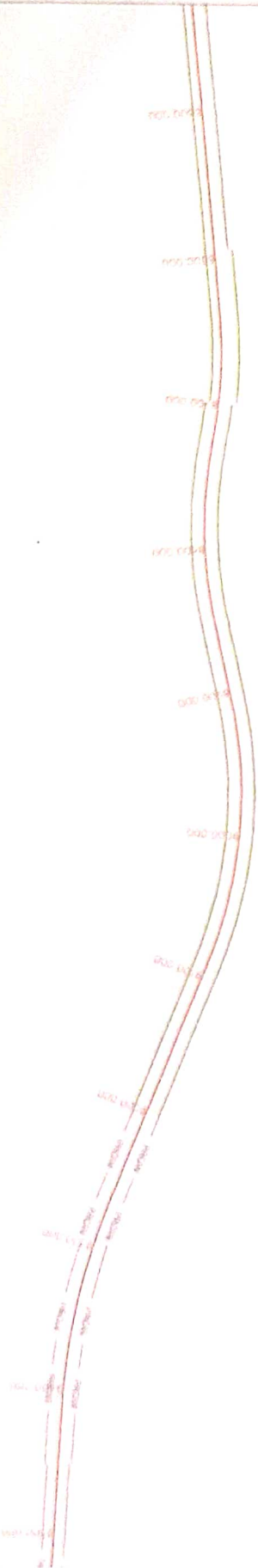
ALLIANCE FOR


for Commander

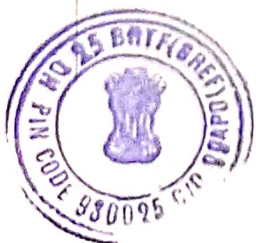
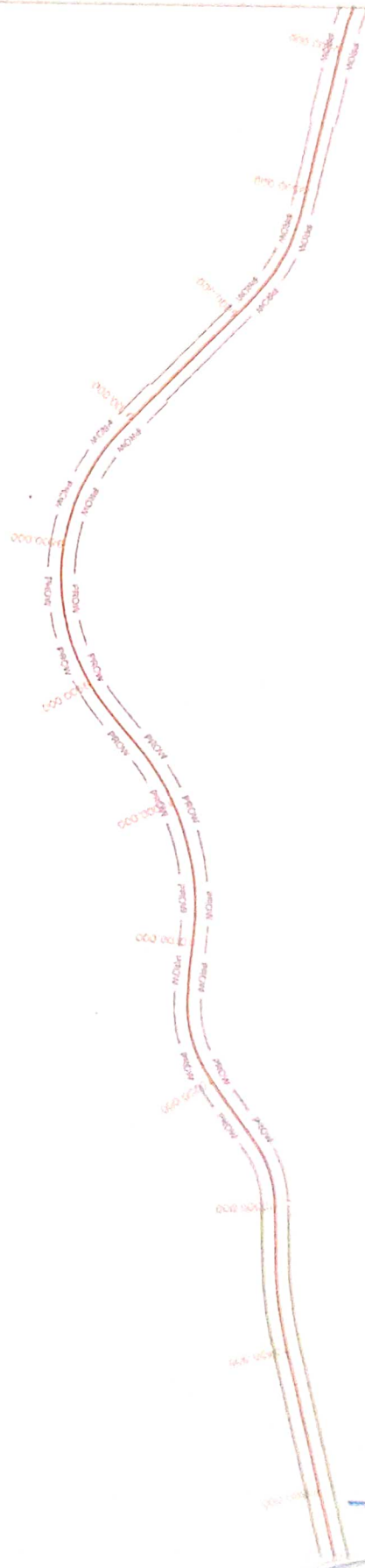


Print
 AEE/AE (CIV)
 for Commander

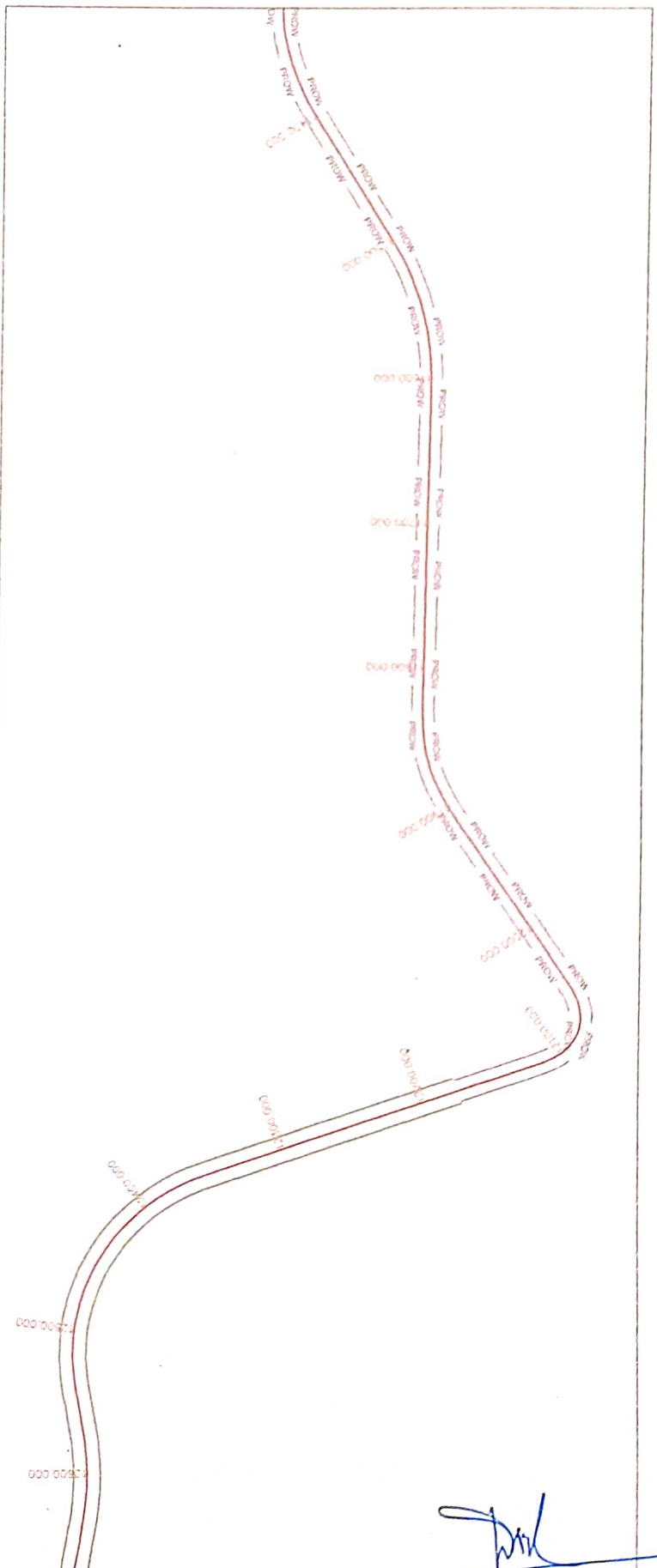
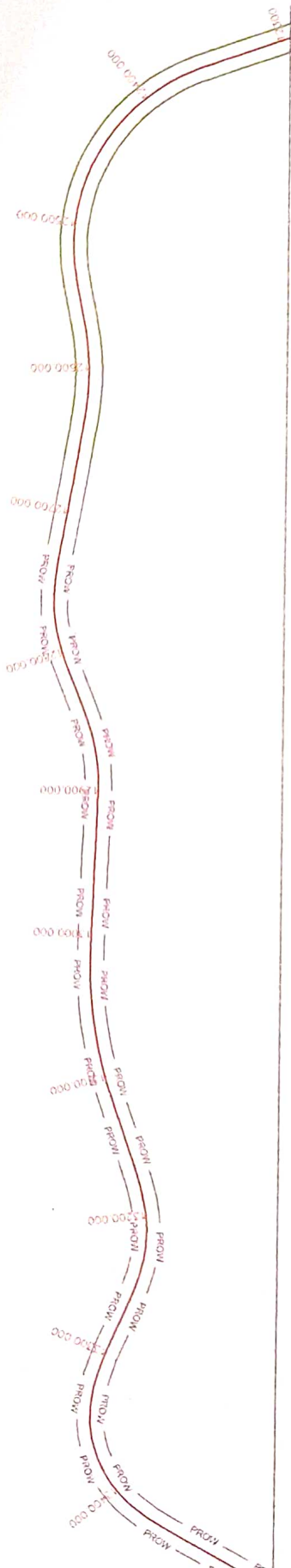
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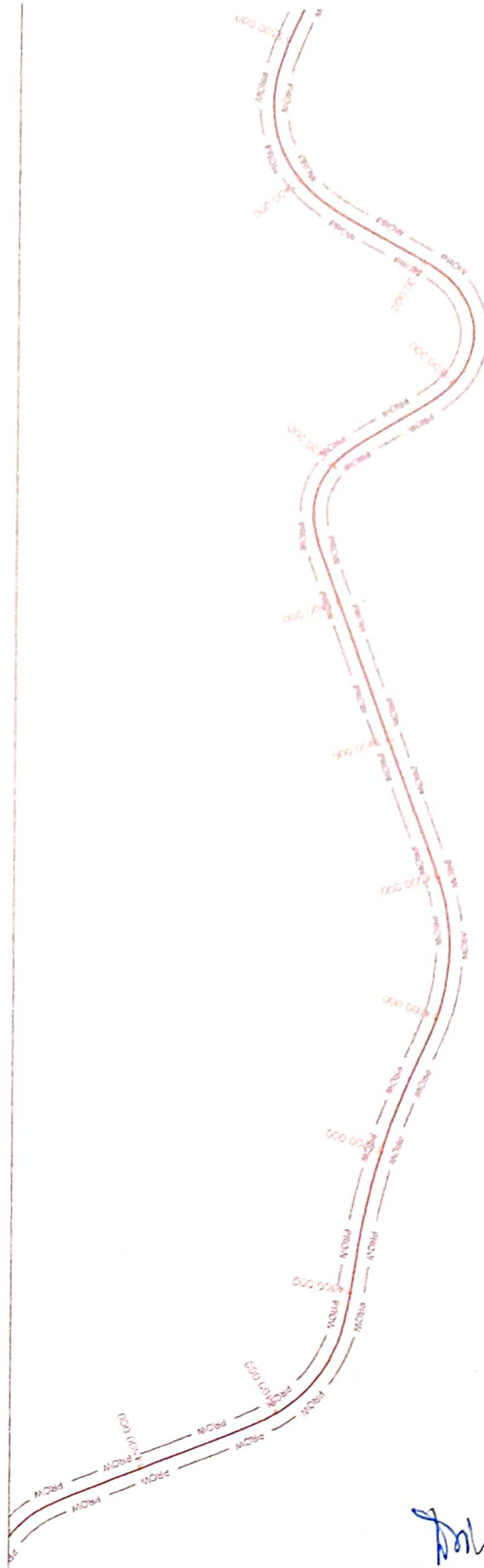
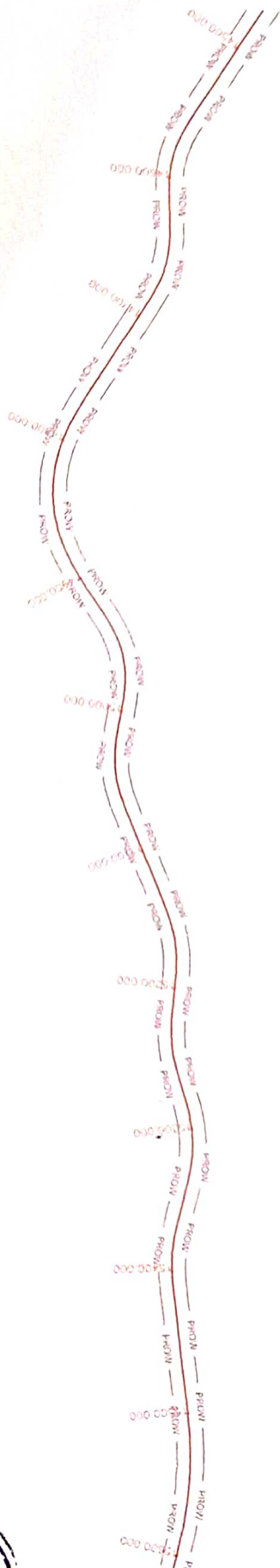

AEE/AE (GIM)
for Commander



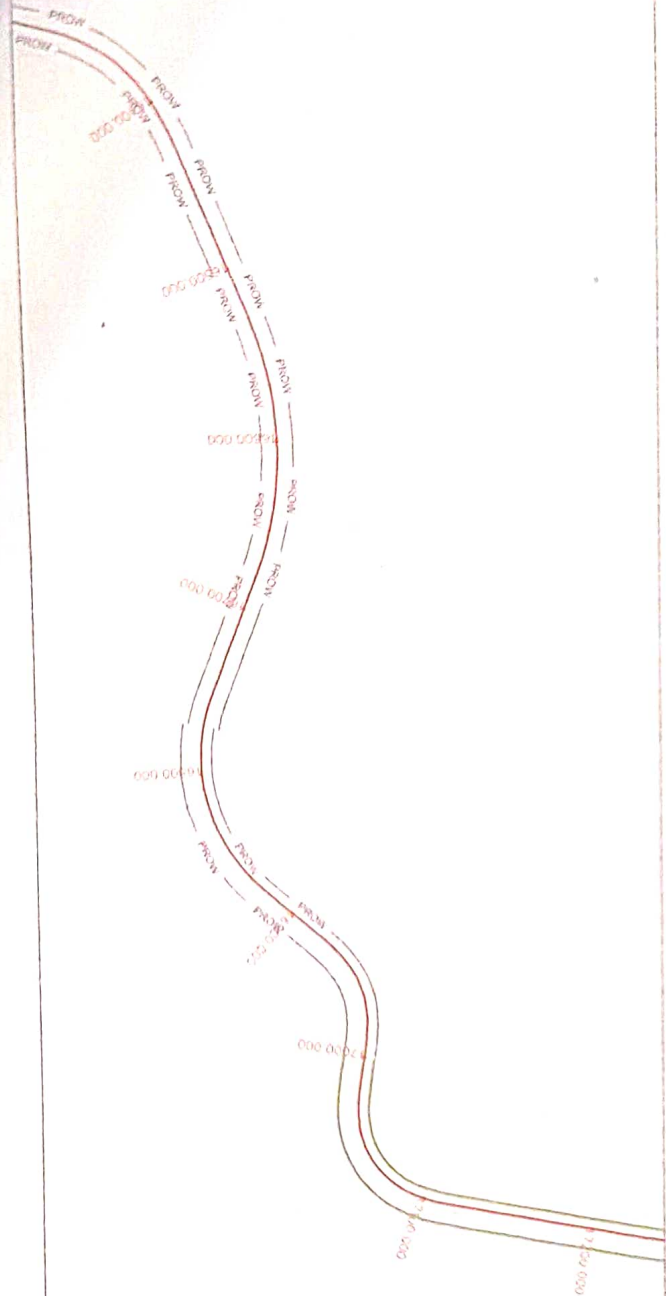
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ARE/AE (Civ)
 for Commander



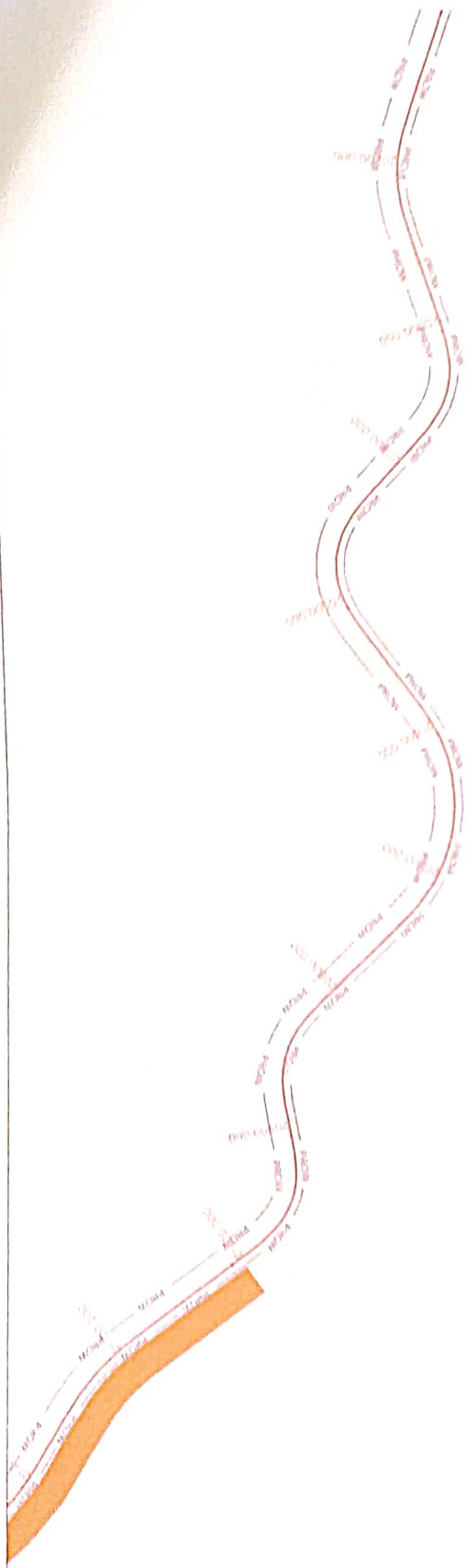
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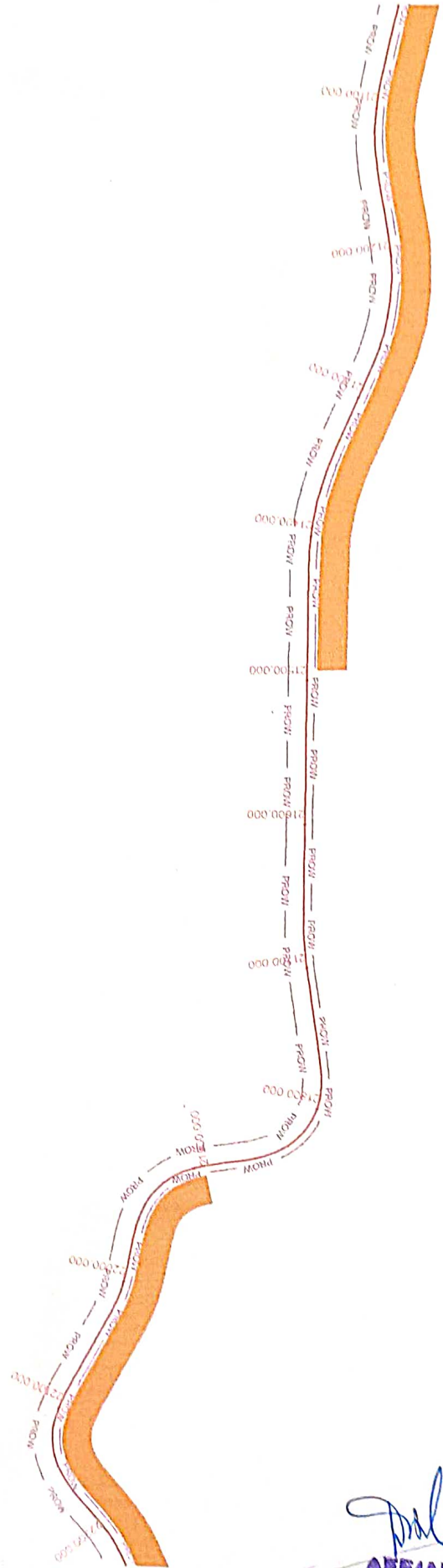
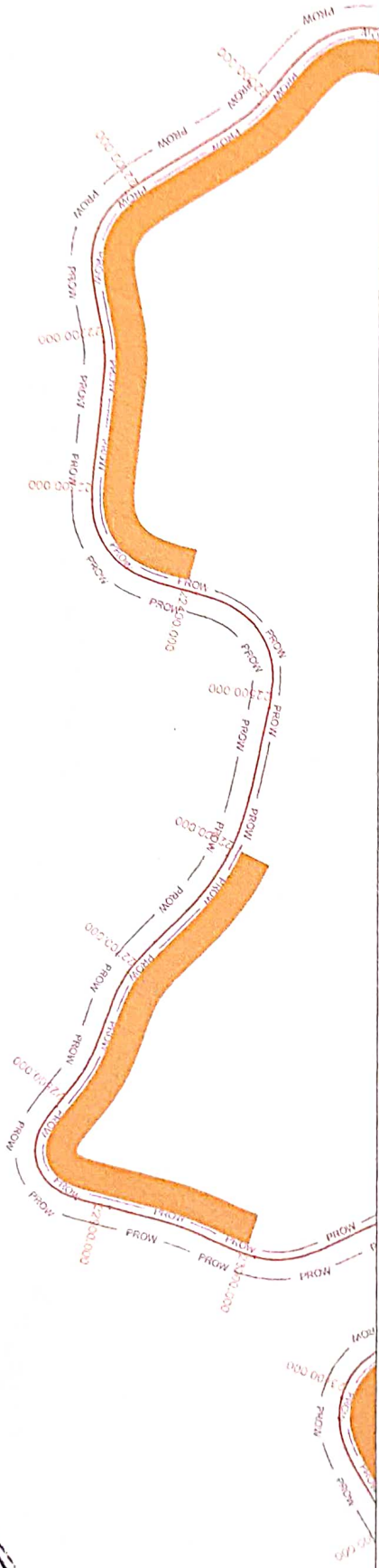


for Command
AEE/AE (Civ)
for Command

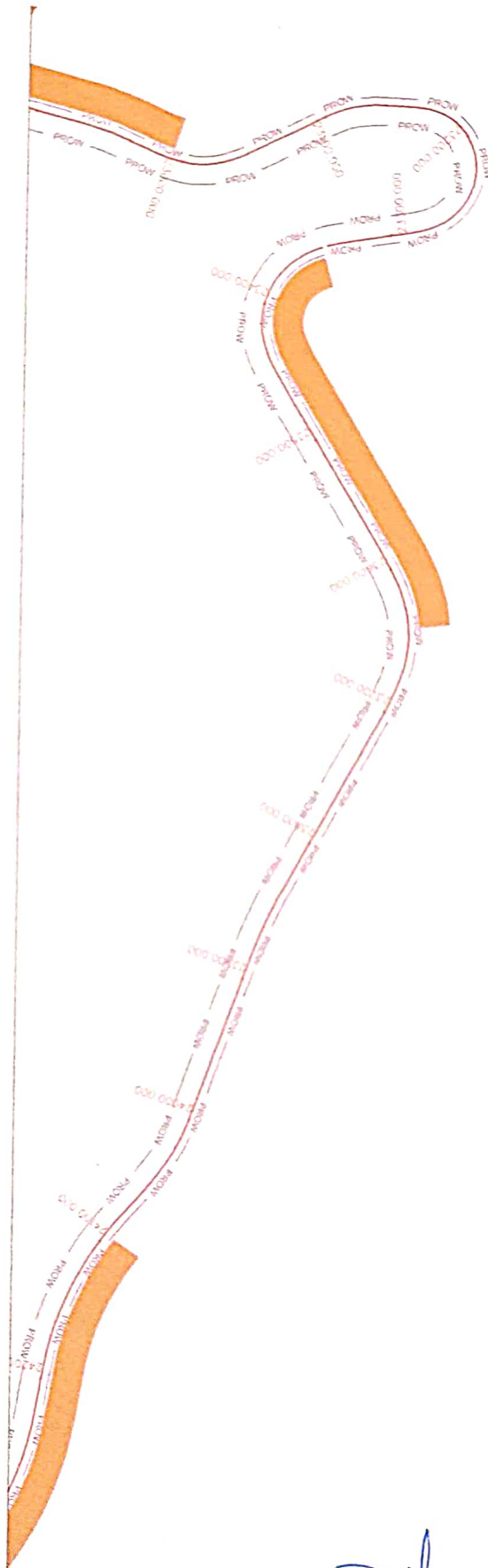
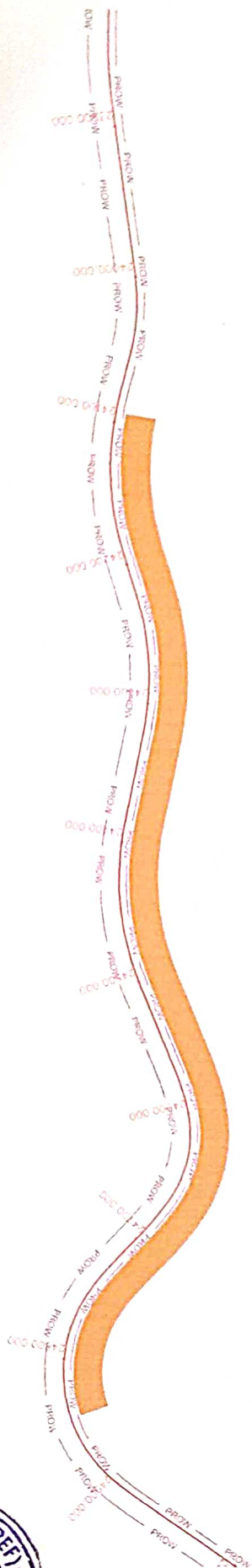



AEE/AE (Cm)
for Commander

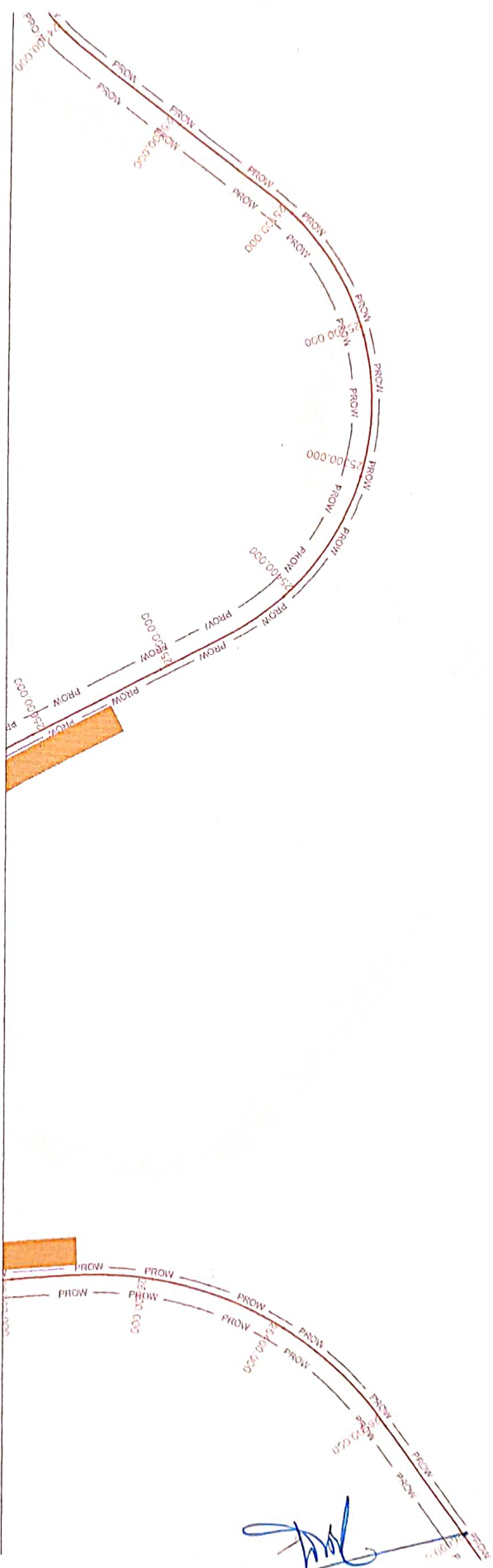
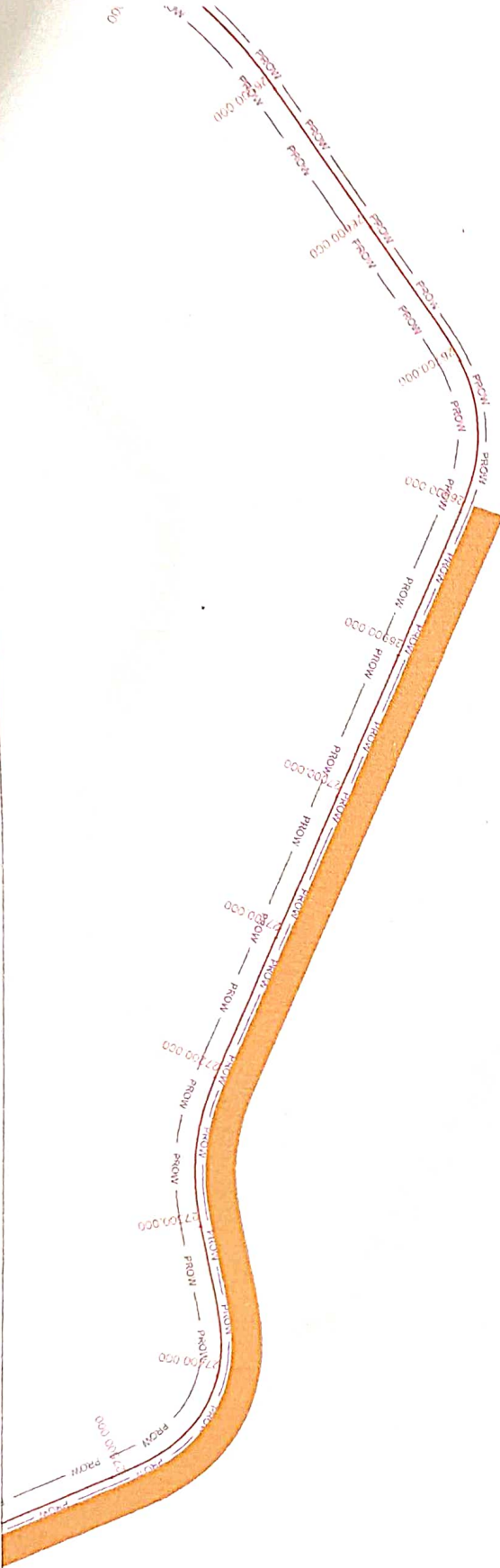




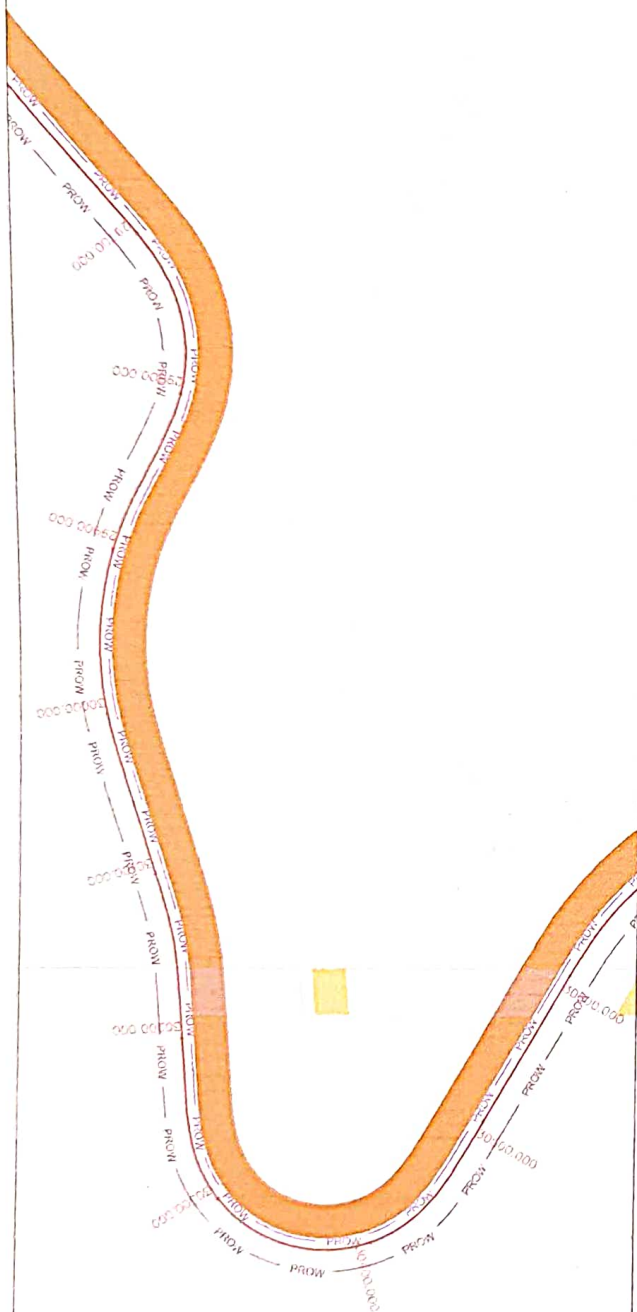
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AEE/AE (Civ)
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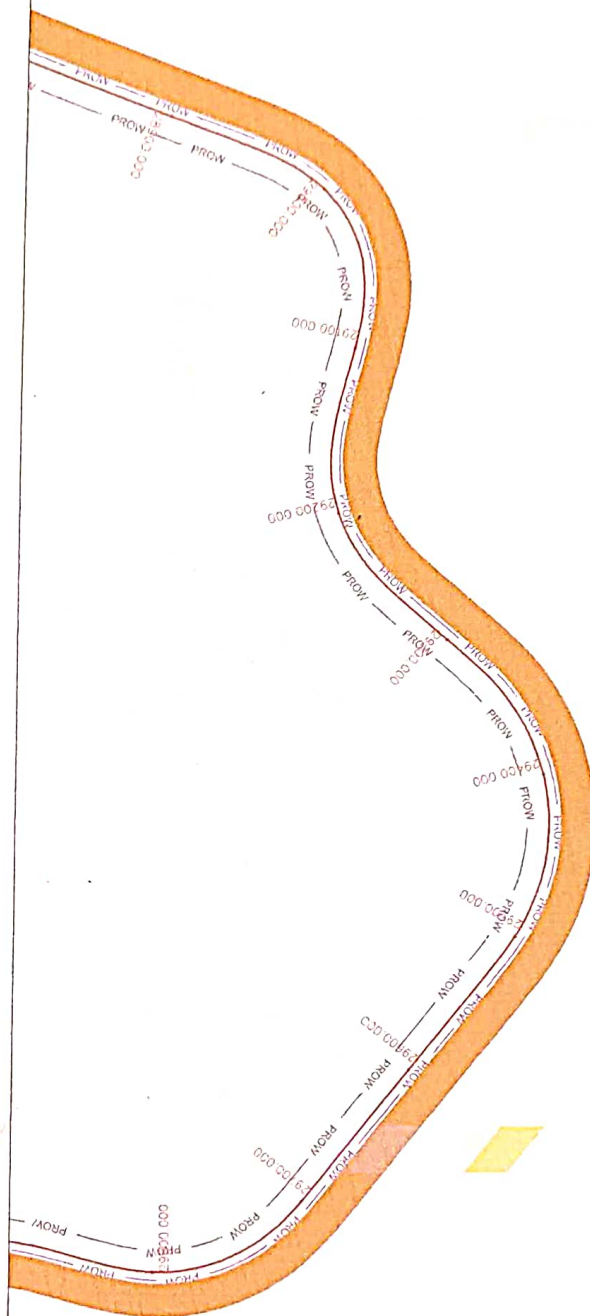

AEE/AE (CIV)
for Command




AEE/AE (Civ)
for Command

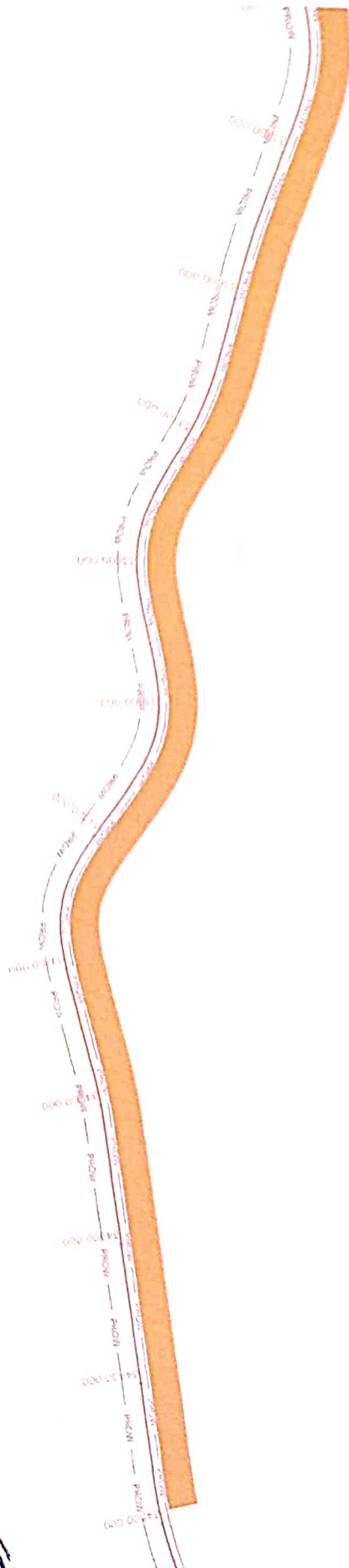


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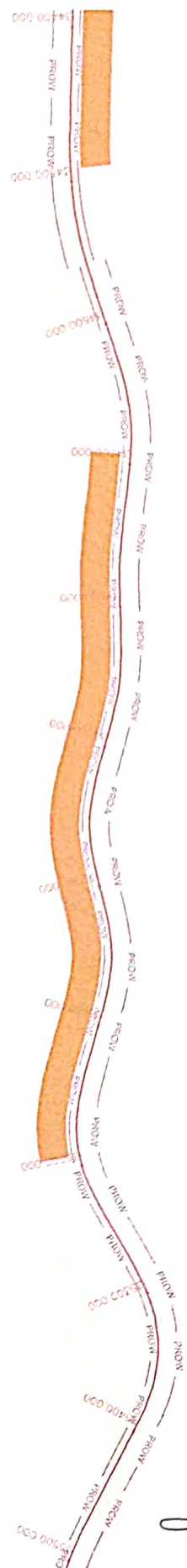
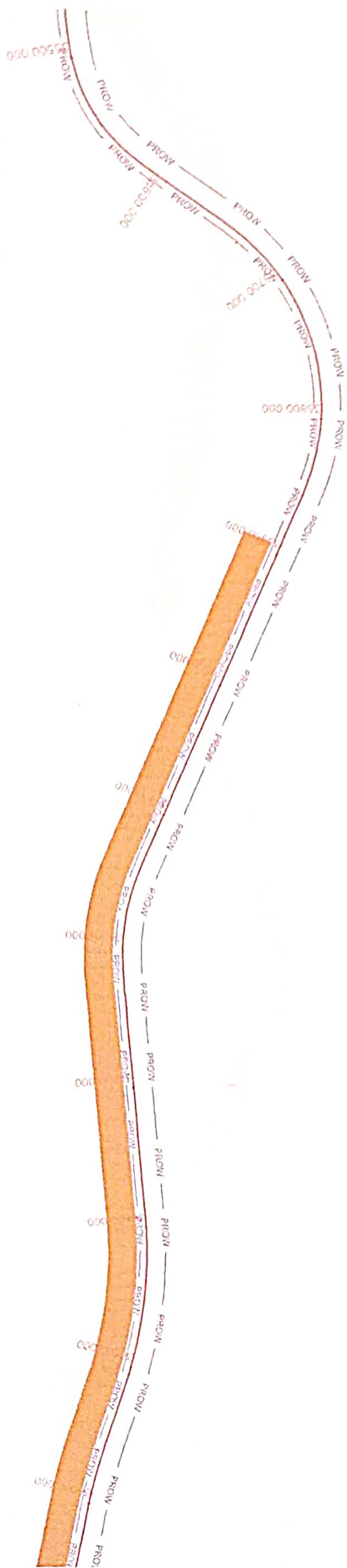


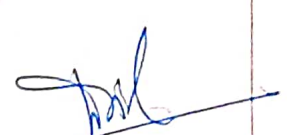


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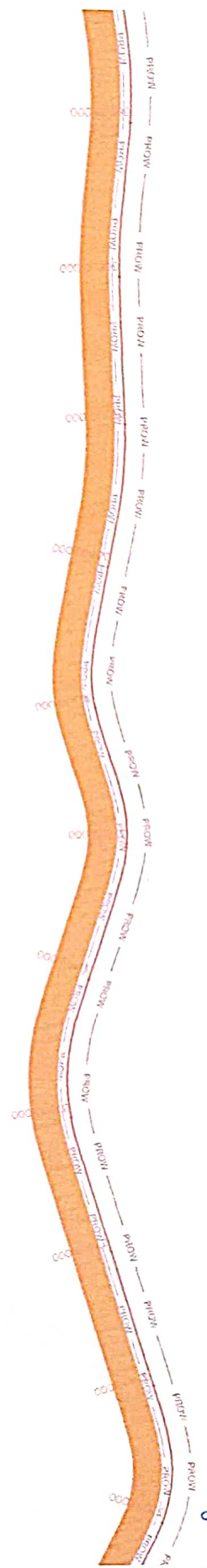


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AEE/AE (C/M)
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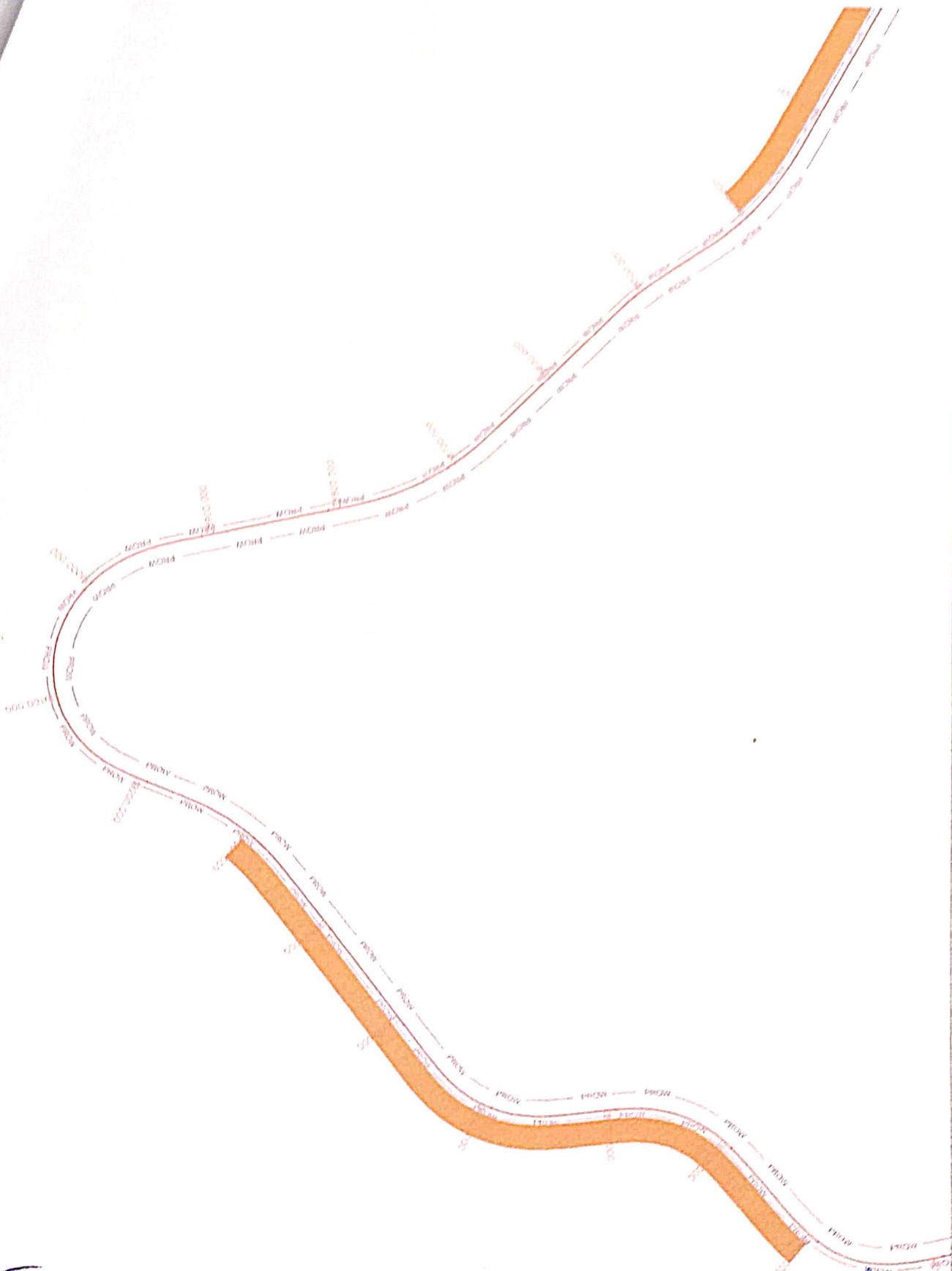

ARE/AE (Civ)
for Command





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AEE/AE (Civ)

for Commander

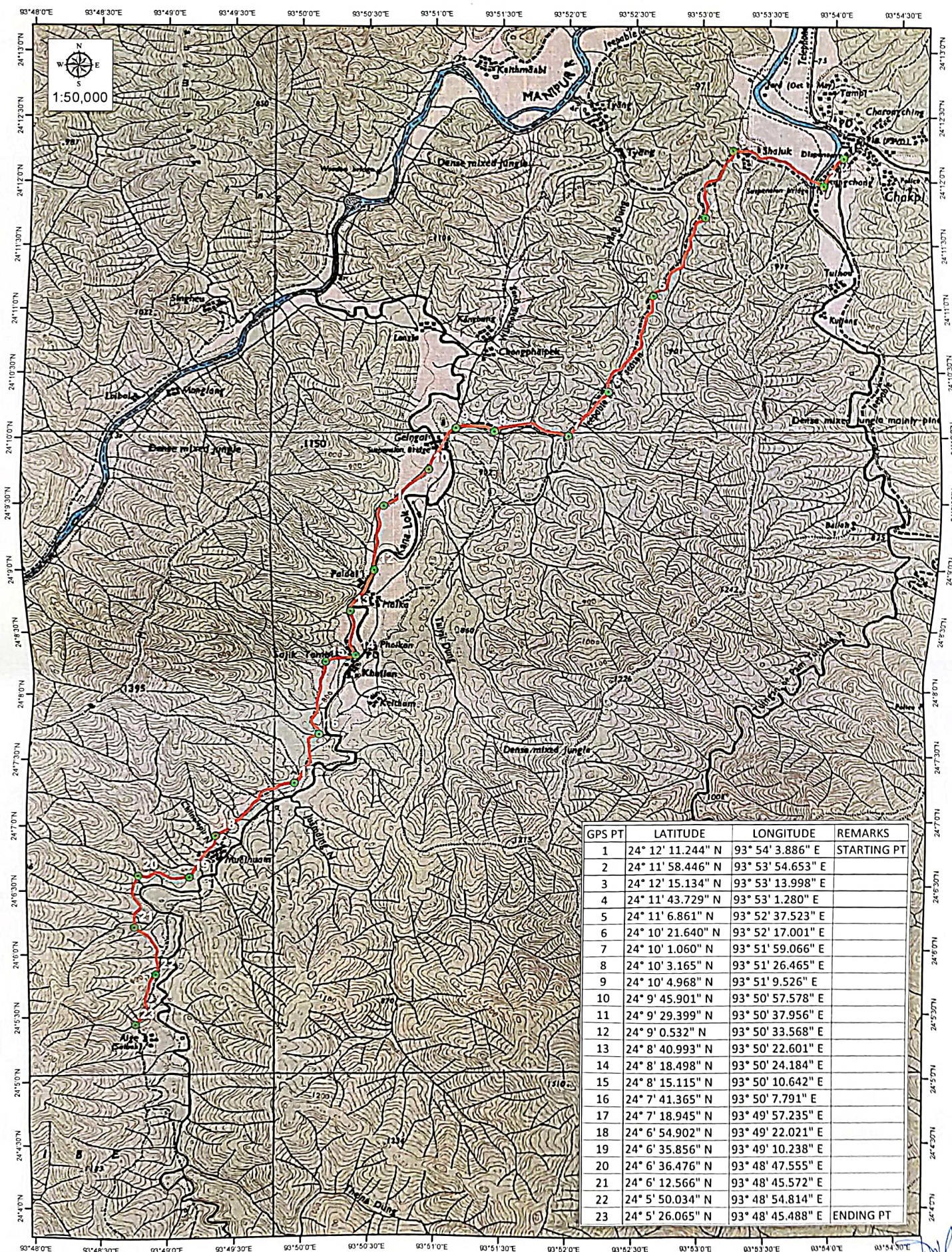


Signature
AEE/AE (CM)
for Command



for Commander

**SOI Toposheet Map showing proposed diversion of 22.045 ha of forest land for
Widening/Improvement of existing road Chakpikarong-Sajik-Aigong-Khongtal to NHSL Specifications
(Phase-1, From Km 00.000 to Km 19.500)**



GPS PT	LATITUDE	LONGITUDE	REMARKS
1	24° 12' 11.244" N	93° 54' 3.886" E	STARTING PT
2	24° 11' 58.446" N	93° 53' 54.653" E	
3	24° 12' 15.134" N	93° 53' 13.998" E	
4	24° 11' 43.729" N	93° 53' 1.280" E	
5	24° 11' 6.861" N	93° 52' 37.523" E	
6	24° 10' 21.640" N	93° 52' 17.001" E	
7	24° 10' 1.060" N	93° 51' 59.066" E	
8	24° 10' 3.165" N	93° 51' 26.465" E	
9	24° 10' 4.968" N	93° 51' 9.526" E	
10	24° 9' 45.901" N	93° 50' 57.578" E	
11	24° 9' 29.399" N	93° 50' 37.956" E	
12	24° 9' 0.532" N	93° 50' 33.568" E	
13	24° 8' 40.993" N	93° 50' 22.601" E	
14	24° 8' 18.498" N	93° 50' 24.184" E	
15	24° 8' 15.115" N	93° 50' 10.642" E	
16	24° 7' 41.365" N	93° 50' 7.791" E	
17	24° 7' 18.945" N	93° 49' 57.235" E	
18	24° 6' 54.902" N	93° 49' 22.021" E	
19	24° 6' 35.856" N	93° 49' 10.238" E	
20	24° 6' 36.476" N	93° 48' 47.555" E	
21	24° 6' 12.566" N	93° 48' 45.572" E	
22	24° 5' 50.034" N	93° 48' 54.814" E	
23	24° 5' 26.065" N	93° 48' 45.488" E	ENDING PT

Legend

- GPS PT
- PROPOSED ROAD SECTION PHASE-1 (22.045 HA)



AEE/AE (Civ)
for Command

**FSI Forest Cover Map showing proposed diversion of 22.045 ha of forest land for
Widening/Improvement of existing road Chakpikarong-Sajik-Aigong-Khongtal to NHSL Specifications
(Phase-1, From Km 00.000 to Km 19.500)**

