No. RO/VJA/Misc.24/B/Steel Gas Pipeline/NH-544E/Sr.no.95 / 1097 Government of India Ministry of Road Transport & Highways

Regional Office, Vijavawada

Door No.41-29-45A, 3rd & 4th floors, MORTH/NHAI Buildings, Ranigarithota, Near Kanakadurga Varadhi, Krishnalanka, Vijayawada-520013. Tele: 0866-2571985

Dated: 30.12.2021

Invitation of Public Comments

Proposal for Permission for laying Gas pipeline of 12" dia steel pipeline by M/s AGP Gas Pvt. Ltd. along the NH-544E road from km 26/939 to km 58/539 (LHS) of Kodikonda - Madakasira - Sira road of NH-544E for a total length of 31.60kms in Ananthapur District in the State of Andhra Pradesh .- reg.

Please find enclosed herewith the proposal in accordance with Ministry's latest guidelines dated 22.11.2016 forwarded by Chief Engineer(R&B), NH & CRF, AP vide letter dated 16.12.2021 for laying Gas pipeline of 12" dia steel pipeline by M/s AGP Gas Pvt. Ltd. along the NH-544E road from km 26/939 to km 58/539 (LHS) of Kodikonda - Madakasira - Sira road of NH-544E for a total length of 31.60kms in Ananthapur District in the State of Andhra Pradesh by the Trenchless method i.e. Micro Tunneling method / Boring method / Ramming of carrier pipe / Horizontal Directional Drilling (HDD) method.

- As per the guidelines, issued by the Ministry vide Circular No.RW/NH-33044/29/2015/S&R(R) dated 22.11.16, the proposal for Highway crossing permission along National Highways shall be put out in the public domain for 30 days for seeking claims and objections on grounds of public inconvenience, safety and general public interest.
- In view of the above, comments of the public on the above mentioned proposal is invited on the address mentioned below:

The Regional Officer, Ministry of Road Transport and Highways, Door No.41-29-45A, 3rd & 4th floors, MORTH/NHAI Buildings, Ranigarithota, Near Kanakadurga Varadhi, Krishnalanka, Vijayawada - 520013 Email id: romorthvijayawada@gmail.com.

Yours Faithfully,

Encl: As above

(Venkataiah Mekala) Sr. Technical Assistant, For Regional Officer, MoRTH, Vijayawada

Copy to:

- 1) Senior Technical Director, NIC for uploading on the Ministry's website.
- 2) The Chief Engineer(R&B), NH & CRF, AP.
- 3) The Superintending Engineer(R&B), NH Circle, Vijayawada for kind information.
- 4) The Executive Engineer (R&B), NH-Division, Ananthapur For kind information.
- 5) M/s AGP City Gas Private Limited, 1st floor, BNR Complex, D.no. 8-288C, District Court Road, Ananthapur - 515001.

INSPECTION REPORT

Permission for laying of GAS pipeline (12" Dia Steel pipe) along National Highway Road 544-E from Km. 26/939 to 58/539 (LHS) of Kodikonda - Madakasira - Sira road in Anantapuramu

We have inspected site, with reference to the proposal submitted by AG & P City Gas Private Limited., Anantapuramu for the proposal laying GAS pipeline along NH-544E From Km 26/939 to 58/539 (LHS) of Kodikonda - Madakasira - Sira road for a length of 31.600 Kms along the road". The following points were observed and mentioned below.

- 1. The total length of the GAS pipeline (12" Dia Steel pipe) is 31.60 Kms, along the NH 544E road from Km. 26/939 to 58/539 (LHS).
- 2. The AG & P City Gas private Limited., Anantapuramu has Proposed to lay GAS pipeline (12" Dia Steel pipe) (at a depth of 1.00 Mts to 1.50 Mts below ground level) to a length of 31.600 Kras and by Open trench method (at a depth of 1.00 to 1.50 Mts below ground level).
- 3. The ROW of the road varies from 25 Mts to 30 Mts in this stretch of road.
- 4. Restoration of trench should be done by the Agency as specified by the Ministry Vide F. No.RW/NH-33044/29/2015/S&R(R) Dated 22-11-2016.
- 5. The Agency has submitted Undertaking for submission of Performance Bank Guarantee. Indemnity bond, Certificate foe relocation of pipeline in case 4/6 Lanning of the road and undertaking to comply with the MORTH Guidelines.
- 6. The strip plan and methodology of laying pipeline and other documents submitted by the agency is attached here with.
- 7. No road crossing in the proposal.

The land rates have been obtained from the offices of the Registration and Stamps Department, Government of Andhra Pradesh, and a copy of the same is attached.

Further the restoration charges Rs. 79,00,000/- in the shape of Bank Guarantee and license fee Rs. 2.76,541/- (for five years) in the shape of DD may be obtained from AG & P City Gas Private Limited., Anuntapuramu and Kadapa (YSR) Dist.

(R&B) NH Section, Kadiri

NH Subdivision, Tadipatri.

Executive Engineer (R&B) NH Division, Anantapuramu

Superintending Englineer

R & E) NH Circle, Anantapuramu

SPECIFICATION REPOR

Specification Report to accompay the estimate towards Licence fee and Performance guarantee for restoration charges for laying GAS pipeline (12" Dia Steel pipe) along National Highway road 544-E from Km. Km 26/939 to 58/539 (LHS) of Kodikonda - Madakasira - Sira road in Anantapuramu District, of Andhra Pradesh state for "AG & P City Gas private Limited., Anantapuramu"

> Performance Bank Guarantee : Rs: 79,00,000.00

License Fee Amount: Rs: 2,76,541.00

As per instruction of Higherauthorities vide Endt No:NH544E/JTO/2021-22 Dt: 01/12/2021 of the Authority:-Executive Engineer (R&B) NH Division, Anantapuramu.

In the representation vide AG & P City Gas private Limited., Anantapuramu; Dt:25/11/2021, the Asst. Vice President CGD Anantapuramu and Kadapa (YSR) Dists. AGP City Gas Pipeline Projects Ltd requested for granting permission to lay GAS pipeline (12" Dia Steel pipe) along National Highway rozd 544-E from Km. 26/939 to 58/539 (LHS) of Kodikonda - Madakasira - Sira road in Anantapuramu District of Andhra Pradesh state. The me is verified and obtained all relavent certificates, undertakings, checklist, corrected drawings, etc., which are missing in their representation.

The rate of Lands abutting National Highway road 544-E from Km. 26/939 to 58/539 (LHS) of Kodikonda - Madakasira - Sira road is obtained from the website of Registration & Stamps Department of GoAP. and used in Calculating of the License Fee .

The Licence Fee for Restoration charges have been worked out as per MoRTH gude lines vide letter No. RW/NH-33044/29/201S/S&R(R) Dated: 22nd November, 2016

Further the Licence Fee Rs: 2,76,541/- in the shape of DD and Restoration charges Rs:79,00,000/- in the shape of Bank Guarantee may be obtained from AG & P City Gas pipeline projects Ltd.

NH Section, Kadir

NH Sub Wision, Tadipatri

Executive Engineer (R&B) NH Division, Anantapuramu

> Superintending Engineer R & B) NH Circle, Anantapuramy

ANNEXURE - I

Calculation of License Fees & Bank Guarantee Amount

Proposal for granting of permission for Laying the GAS pipeline (12" Dia Steel pipe) along NH-544E (Kodikonda - Madakasira - Sira road) from Km. 26/939 to 58/539 (LHS) for a total route length of 31.600 meters in Anantapuramu District of Andhra Pradesh.

Remarks						14												
Amount	Rs.	8.19.802	52.263	40,402	1,14,904	1,88,294	1,34,919	32,025	80,729	70,721	11,476	1,30,472		16,76,006	13,967	8,38,003	2,76,541	
Prevailing Circle	rate of Land in Rs,/Sq.Mtrs. (Rate per Acre/4046.86)	453.93	61.78	61.78	61.78	123.55	61.78	22.24	22.24	22.24	22.24	98.84					Dia Steel pipe) –	
Prevailing Circle rate Prevailing Circle	of Land in Rs./Acre (As per Revenue Records)	18,37,000	2,50,000	2,50,000	2,50,000	2,00,000	2,50,000	000'06	000'06	000'06	000'06	4,00,000					ited., Anantapuramu for Laying of GAS pipeline (12" as per point No. 5 of MoRTH gude lines vide letter No.	RW/NH-33044/29/2015/S&R(R) Dated: 22nd November, 2016 i.e. Rs.8,38,003/-*33%)
	NH Land Area Sq. Mtrs.	1,806.00	846.00	654.00	1,860.00	1,524.00	2,184.00	1,440.00	3,630.00	3,180.00	516.00	1,320.00			6/10*12	67*12*5	u for Laying f MoRTH gu	, 2016 i.e. Rs.8
Width	Mtrs.	09.0	09.0	09.0	09.0	09.0	09.0	09.0	09.0	09.0	09:0	09.0		nt	=16,76,00	ears = 139	ntapuram	lovember
Length	route Mtrs.	3,010	1,410	1,090	3,100	2,540	3,640	2,400	6,050	5,300	860	2,200	31,600	Total Amount	License Fees (Rs/month) =16,76,006/10*12	Total License Fees for 5 years = 13967*12*5	imited., Ana	ated: 22nd N
	km km	29.940	31.350	32.440	35.540	38.080	41.720	44.120	50.170	55.470	56.330	58.530			ense Fees	al License	private Li trial Utiliti	S&R(R) D
Chainage	from km	26.930	29.940	31.350	32.440	35.540	38.080	41.720	44.120	50.170	55.470	56.330			Lic	Tot	& P City Gas	44/29/2015/
Name of Village		Hindupur	Utakur	Sangameswarapalli	Yerragunta	Parigi	Sirekolam	C. Kondigepalli	Kallumarri	Bullasamudram	Chathram	Madakasira					Total License Fees payable by AG & P City Gas private Limited., Anantapuramu for Laying of GAS pipeline (12" Dia Steel pipe) ————————————————————————————————————	RW/NH-330
6 2	.0	н	2	8	4	2	9	7	8	6	10	11					otal Lice	

Performance Bank Guarantee Amount calculation

Amount of Performance Bank Guarantee to be submitted = Total No. of route meters x Rs.250/- per route meter (<= 300 mm dia/wight) I.e. 31.600 x Rs. 250/- = 79,00,000/-

Performance Bank Guarantee Amount = Rs: 79,00,000/-

Assistant Exe. Engineer (Rest) 2020

Departy gas, Engineer (R&B)

NH Sub division, Tadipatri

NH Division, Tadipatri

Executive Engineer (R&B) NH Division,Anantapuramu

Superintending Engineer

CERTIFICATE

- Under signed has examined the proposal of the applicant for laying of Permission to Laying Gas Pipeline (12" Dia steel pipe) along National Highway Road NH-544E from Km.26/939 to 58/539 (LHS) of Kodikonda – Madakasira – Sira road in Anantapuramu District of Andhra Pradesh and confirm that the all standard conditions issued vide Ministry Circular No.RW/NH-33044/29-2015/S&(R), Dt.22.11.2016 has been followed.
- It is certified that any other locations of utility line would be extremely difficult and unreasonable costly and installation of utility line within RoW will not adversely affect the design stability & traffic safety of the highway nor the likely future improvement such as widening of the carriageway, casing of curve etc.,
- 3. I will ensure supervision of the work of laying of utility and ensure that the defects in the road portion after laying of utility are corrected.
- I will notify / forfeit the BG for claims for damages done / disruption in working, if any.
- 5. I will ensure the proposed permission in the entered in the register of records.
- The record of previous approval, if any has been considered and the copy of same is enclosed with the proposal.

Executive Engineer

(R&B) NH Division, Anantapuramu.

Superintending Engineer

CHECK LIST

(Madakasira -P.Byadigera Section of NH-544E

Sr. No	ltem	Information / Status of Crossing – 1	Remarks
1	General Information	Construction of Gas Pipeline inAnantapurAndhraPrasesh	A CASA A PAGE
1.1	Name and Address of the Applicant / Agency	M/s. AGP City Gas Private Limited, 1st Floor,BNRComplex, Door No. 8-288C, District Court Road, Ananthpur-515001, Andhra Pradesh	
1.2	National Highway Number	NH-544E	
1.3	State	Andhra Pradesh	
1.4	Location	Near Madakasira Road to P.Byadigera	
1.5	Chainage in KM	1)From 58/539 to 99/179 KMS	Centreline chainage of NH
1.6	Length in Meters	40640m	
1.7	Width of Available ROW		
	(a) Left side from center line towards increasing chainage / km direction	15mtrs	
	(b) Right side from center line toward increasing chainage/ km direction	15mtrs	
1.8	Proposal to lay underground Gas pipeline	NA	
	(a) Left side from centreline towards increasing chainage/ Km direction	Yes	
	b) Right side from center line toward increasing chainage/ km direction	NA	
1.9	Proposal to acquire land	NA	Land acquisition is not required as sufficient utility corridor is available.
	(a) Left side from centreline	NA	
	(b) Right side from centreline	NA	
1.10	Whether proposal is in the same side where land is not to be acquired	NA	^/
	If not then where to lay the cable	NA /	Da W
1.11	Details of already laid services, if any along the proposed route.	OFC, Water pipeline, electrical lines etc.	xecutive Engineer (R
1.12	Number of existing lanes (2/4/6/8 lanes)	2 Lany N.H	H. Division, Anantapur
1.13	Proposed Number of lanes (2 land with paved shoulders 405/6/8 lanes) Deputy	Angulation Engineer	Dan Kal

a) Left side from Center line b) Right side from center line roposed Service Road a) Left side from center line b) Right sid	NA NA		
Proposed Service Road a) Left side from center line b) Right side from center line Whether proposal to lay Gas Pipeline is fter the service road or between the ervice road and main carriageway Whether carrying of sewage / gas ipeline has been proposed on highway ridges. Then mention the methodology roposed for the same Whether carrying of sewage / gas ipeline has been proposed on the arapet / any part of bridges. If yes, hen mention the methodology roposed for the same crossing of the road involved yes, it shall be either encased in	NA NA		
A) Left side from center line (b) Right side from center line (c) Right side from center line (d) Right side from center line (d	NA NA		
Whether proposal to lay Gas Pipeline is fter the service road or between the ervice road and main carriageway. Whether carrying of sewage / gas ipeline has been proposed on highway ridges. Then mention the methodology roposed for the same. Whether carrying of sewage / gas ipeline has been proposed on the arapet / any part of bridges. If yes, hen mention the methodology roposed for the same. Crossing of the road involved yes, it shall be either encased in	NA NA		
Whether proposal to lay Gas Pipeline is fter the service road or between the ervice road and main carriageway Whether carrying of sewage / gas ipeline has been proposed on highway ridges. Then mention the methodology roposed for the same Whether carrying of sewage / gas ipeline has been proposed on the arapet / any part of bridges. If yes, nen mention the methodology roposed for the same crossing of the road involved yes, it shall be either encased in	NA NA		
fter the service road or between the ervice road and main carriageway Whether carrying of sewage / gas ipeline has been proposed on highway ridges. Then mention the methodology roposed for the same Whether carrying of sewage / gas ipeline has been proposed on the arapet / any part of bridges. If yes, nen mention the methodology roposed for the same crossing of the road involved yes, it shall be either encased in	NA NA		
ridges. Then mention the methodology roposed for the same Whether carrying of sewage / gas ipeline has been proposed on the arapet / any part of bridges. If yes, hen mention the methodology roposed for the same crossing of the road involved yes, it shall be either encased in	NA		
ipeline has been proposed on the arapet / any part of bridges. If yes, nen mention the methodology roposed for the same crossing of the road involved yes, it shall be either encased in			
yes, it shall be either encased in	NΔ		
yes, it shall be either encased in ipes or through structure on conduits	INA		
pecially built for that purpose at the xpenses of the agency owning the ne.			Sec.
a) Whether existing drainage tructures are allowed to carry the utility ipelines.	NA		
) Is in on a line normal to NH	NA		
c) What is the distance of crossing the tility pipelines from the existing tructures.	NA		
rossing shall not be too near the xisting structures on the National ighway, the minimum distance being 5 meter.			
f) The casing pipe (or conduit pipe in le case of electric cable) carrying the tility line shall be of steel, cast iron, or einforced cement concrete and have dequate strength and be large enough permit ready withdrawal of the carrier pe/cable.	NA		Λ.
lention type of casing.		Dian	()()
e) Ends of the casing / conduit pipe hall be sealed from the outside, so hat it does not act as a drainage path.			
) The casing / conduit pipe should, as infimum extend from drain to drain in its and the of slope toe of slope in fills	mylystizh	H. Division, A	Newko
the tag of the second	The casing pipe (or conduit pipe in a case of electric cable) carrying the ility line shall be of steel, cast iron, or inforced cement concrete and have dequate strength and be large enough permit ready withdrawal of the carrier pe/cable. ention type of casing. Ends of the casing / conduit pipe hall be sealed from the outside, so at it does not act as a drainage path. The casing / conduit pipe should, as inimum extend from drain to drain in its and the of slope the of slope in fills in the case of slope in f	The casing pipe (or conduit pipe in a case of electric cable) carrying the ility line shall be of steel, cast iron, or inforced cement concrete and have dequate strength and be large enough permit ready withdrawal of the carrier pe/cable. ention type of casing. Ends of the casing / conduit pipe all be sealed from the outside, so at it does not act as a drainage path. The casing / conduit pipe should, as inimum extend from drain to drain in its and the of slope toe of slope in fills The top of the easing / conduit pipe acceptive Engineer and the of slope toe of slope in fills The top of the easing / conduit pipe acceptive Engineer and the of slope toe of slope in fills The top of the easing / conduit pipe acceptive Engineer and the of slope in fills The top of the easing / conduit pipe acceptive Engineer and the of slope in fills The top of the easing / conduit pipe acceptive Engineer and the of slope in fills The top of the easing / conduit pipe acceptive Engineer and the case and the of slope in fills The top of the easing / conduit pipe acceptive Engineer and the case and the of slope in fills The top of the easing / conduit pipe acceptive Engineer and the case and the case and the of slope in fills The top of the easing / conduit pipe acceptive Engineer and the case and	The casing pipe (or conduit pipe in a case of electric cable) carrying the elitity line shall be of steel, cast iron, or inforced, cement concrete and have dequate strength and be large enough permit ready withdrawal of the carrier pe/cable. The casing / conduit pipe and be sealed from the outside, so at it does not act as a drainage path. The casing / conduit pipe should, as infimum extend from drain to drain in its and the of slope tag of slope in fills The total of the casing / conduit pipe should, as infimum extend from drain to drain in the sand tag of slope tag of slope in fills The total of the casing / conduit pipe should, as infimum extend from drain to drain in the sand tag of slope tag of slope in fills

ention the proposed details) Mention the methodology proposed or crossing of road for proposed ewerage / Gas Pipeline. Crossing the proposed exercise the proposed proposed exercise the	NA NA	
r crossing of road for proposed ewerage / Gas Pipeline. Crossing hall be by boring method (HDD) renchless technology) especially here the existing road pavement is of ement concrete or dense bituminous borcrete type. The casing / conduit pipe shall be stalled with an even bearing roughout its length and in such a anner as to prevent the formation of a laterway along it. Document / Drawings enclosed with the loposal ross section showing the size of ench for open trenching method (is it formal size of 1.2m deep x 0.3m wide) Should not be greater than 60cm ider than the outer diameter of the pe Located as close to the extreme dige of the right-of-way as possible but bot less than 15 meter from the centre-		
stalled with an even bearing roughout its length and in such a anner as to prevent the formation of a aterway along it. coument / Drawings enclosed with the oposal ross section showing the size of ench for open trenching method (is it ormal size of 1.2m deep x 0.3m wide) Should not be greater than 60cm ider than the outer diameter of the pe Located as close to the extreme dge of the right-of-way as possible but of less than 15 meter from the centre-	NA .	
ross section showing the size of each for open trenching method (is it ormal size of 1.2m deep x 0.3m wide). Should not be greater than 60cm ider than the outer diameter of the pe. Located as close to the extreme dge of the right-of-way as possible but of less than 15 meter from the centre-	- partiremental and	
ench for open trenching method (is it ormal size of 1.2m deep x 0.3m wide) Should not be greater than 60cm ider than the outer diameter of the pe Located as close to the extreme dge of the right-of-way as possible but of less than 15 meter from the centre-		
ider than the outer diameter of the pe) Located as close to the extreme dige of the right-of-way as possible but bit less than 15 meter from the centre-		
dge of the right-of-way as possible but of less than 15 meter from the centre-		
i) Shall not be permitted to run along e National Highways when the road immation is situated in double cutting, or shall these be laid over the existing alverts and bridges.		
r) These should be said that their top at least 0.6 meter below the ground vel so as not to obstruct drainage of the road land.		
ross Section showing the size of pit and location of Gas Pipeline for HDD sethod	NA	
trip plan / Route plan showing Gas ipeline, Chainage, width of ROW. istance of proposed, cable from edge RoW, important mile stone, tersections, cross drainage works etc.	NA OK	^^
ethodology for laying of sewage / atural Gas Pipe line	Enclosed	Shunn
pen trenching method. (May be lowed in utility corridor only where avement is neither cement concrete of dense bituminous concrete type. In the lowest method of the lowest metho		Engineer (R&B) n, Anantapura
The state of the s	rel so as not to obstruct drainage of e road land. ross Section showing the size of pit and location of Gas Pipeline for HDD ethod rip plan / Route plan showing Gas peline, Chainage, width of ROW. stance of proposed, cable from edge RoW, important mile stone, resections, cross drainage works etc. ethodology for laying of sewage / etural Gas Pipe line pen trenching method. (May be owed in utility corridor only where even to the concrete of dense bituminous concrete type.)	rel so as not to obstruct drainage of e road land. ross Section showing the size of pit ad location of Gas Pipeline for HDD ethod rip plan / Route plan showing Gas peline, Chainage, width of ROW. stance of proposed, cable from edge RoW, important mile stone, rersections, cross drainage works etc. ethodology for laying of sewage / etural Gas Pipe line pen trenching method. (May be owed in utility corridor only where owed in utility corridor only where even to dense bituminous concrete type. It is, Methodology of refilling of

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	than the outer diameter of the Pipe.		
	(b) For filling the trench, Bedding shall be to a depth of not less than 30cm. it shall consist of granular material, free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edged should excavated and replaced by selected material.	Agreed	
	(c) The backfill shall be completed in two stages	Agreed	
	(i) side fill to the level of the top of the pipe and		
	(ii) overfill to the bottom of the road crust.		
	d) The side fill shall consist of granular material laid in 15cm layers each consolidated by mechanical tampering and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted	Agreed	
	(e) The road crust shall be built to the same strength as the existing crust on either side of the trench. Care shall be taken to avoid the formation of a dip at the trench.	Not Applicable	
	(f) The excavation shall be protected by flagman. Signs and barricades, and red lights during night hours.	Agreed	
	(g) If required, a diversion shall be constructed at the expenses of agency owning the utility line.	Agreed	
2.4.2	Horizontal Directional Drilling (HDD) Method	Yes	
2.4.3	Methodology for laying pipeline through CD works and method of laying. In case of where the carrying of gas pipeline on the bridge becomes inescapable.	Not Applicable	\wedge 0
3	Draft License Agreement signed by two witnesses	Enclosed	anny
3.1	The license fee estimate as per Ministry's guidelines issues vide circular No. RW/NH-33044/29/2015/S&R(R) DATED 22.11.2016	N.H. Division, Anant	Agrees for the
Seisting (I	Whether be formance Bank Guarantee as per winter of the same of th	XecAtive Engineer Sub-Division, Tadipatri.	AG&P Agrees for the SA VENKATESH requiremental HEAD

Sr. No	Item	Information / Status of Crossing – 1	Remarks
4.1	Confirmation of BG has been obtained or not as per MoRTH. NH guidelines		AG&P Agrees for the same as per requirement of NH
5	Affidavit / Undertaking from the applicant for the following is to be furnished:	21	
5.1	Undertaking for Not to Damage any other utility, if damaged then to pay the losses either to NH or to the concerned agency	Enclosed	
5.2	Undertaking for Renewal of Bank Guarantee as and when asked by MORTH / NH.	Enclosed	
5.3	Undertaking for Confirmation all standard condition of Ministry Circulars &NH's guideline	Enclosed	7875-
5.4	Undertaking for indemnity against all damages and claims	Enclosed	
5.5	Undertaking for management of traffic movement during laying of utility line without hampering the traffic	Enclosed	
5.6	Undertaking that prior approval of the NH shall be obtained before undertaking any work of installation, shifting or repairs or alterations to the utility located in the National Highway right-of-ways.	Enclosed	
5.7	Undertaking that expenditure, if any, incurred by NH for repairing any damage caused to the National highway by the laying, Maintenance of shifting of the utility line will be borne by the applicant agency owing	Enclosed	
5,8	Undertaking that text of the text of the license deed is as per verbatim of MoRTH format (issued vide Ministry's Circular no. RW/NH-33044/29/2015/S&R(R) dated 22/11/2016	Enclosed	
5.9	Undertaking that the applicant has obtained various safety clearances' from the respective authorities such as Directorate of Electricity, Chief controller of Explosives, Petroleum and Explosive Safety Organization, Oil industry Safety Directorate, State / Central Pollution Control Board and any other statutory clearances applicable, before applying to Highway Administration		ngineer (R&B) Anantapuramu.
sista (R	If the MoRTH/NH considers it necessary in future to move the utility line for the way fet improvement of the departs to the first of the land of the NH at the cost of the	Enclosed of 2 10 2 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	GA VENKATESH GA HEAD IANTAPUR & KADAPA AG & P

ANANTAPUR & KADAPA (YSR)

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	agency owning the utility line within a reasonable time of the intimation given.		
5.11	Certificate from the applicant in the following format	Enclosed	
	(i) Laying of Gas Pipeline will not have any deleterious effect on any of the bridge components and roadway safety for traffic	+ G ₁ − ber	
	(ii) "We do undertake that I / we will relocate service road / approach road/ utilities at my own cost notwithstanding the permission granted within such time as will be stipulated by NH for future six-lanning or another development		
6	Who sign the agreement on behalf of Gas Pipeline agency	Sri.Gumalapalli A Venkatesh GA Head- Anantapurand YSR Kadapa GA M/s. AGP City Gas Pvt Ltd, Ananthpur	
5.1	Authorised person to sign the agreement on behalf of Gas pipeline agency	Copy enclosed	
7	Certificate from Project Director		
7.1	Certificate that the proposal is confirming to all standards conditions issued vide Ministry's Circular No: RW/NH-33044/29/2015/S&(R) Dated 22.11.2016	Yes, enclosed	
7.2	Certificate from PD in the following format (Yes / No)	Yes, Enclosed	
	(i) " It is certified that any other location of the Pipe line would be extremely difficult and unreasonable costly and the installation of Gas Pipe line within RoW will not adversely affect the		
	design, stability & traffic safety of the highway nor the likely future improvement such as widening of the carriage way, easing of curve etc".		
	(ii) for 6-lanning		. / /
	(a) Where feasibility is available "I do certify that there will be no hindrance to proposed six-laning based on the feasibility report considering proposed structures at the said location".		Engineer (R&B)
Kl	(b) In case feasibility report is not available "I do certify that sufficient ROW is available at site for accommodating accommodating to be taken that	lamply 8/12/n	SA VENHATE GA HEAD NANTAPUR & KADA

HANTAPUR & KADAPA (Y

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	inserted in the agreement. "The permitted Highway on which Licensee has been granted the right to lay Pipeline has also been granted as a right of way to the concessionaire under the concession agreement for upgradation of KeralaSection from Km to KM Of NH No man build, Operate and Transfer Basis] and therefore, the licenses shall honour the same."		
9	Who will supervise the work of laying gas supply pipeline		
	(a) On Behalf of Applicant	Sri.Gumalapalli A Venkatesh GA Head- Anantapur and YSR Kadapa GA M/s. AGP City Gas Pvt Ltd, Ananthpur	
	(b) on Behalf of MoRTH / NH	Executive Engineer NH, Anantapur	
10	Who will ensure that the defects in road portion after laying of gas supply pipe line are corrected and if not corrected then what action will be taken		
	(a) On Behalf of Applicant	Sri.Gumalapalli A Venkatesh GA Head- AnantapurYSRKadapa GA M/s. AGP City Gas Pvt Ltd, Ananthpur	
	(b) on Behalf of MoRTH / NH	Executive Engineer NH, Anantapur,	
11	Who will pay the claims for damages done / disruption in working of Concessionaire if asked by the Concessionaire	M/s AGP City Gas Private Limited.	,
12	A Certificate from PD that he will enter the proposed permission in the register of records of the permission in the prescribed proforma (copy enclosed)		M/s AGP City Gas Private Limited will agree for the same as per the requirement of
13	If any previous approval is accorded for laying of underground Gas Supply Pipeline	No previous approvals accord at the proposed location.	tive Engineer (R&B)

(R & B) NO SECTION

Deputy Expensive Engineer (R & 6) NH, Jub-Division, Tadipatri.

GA. VENKATESH
GA HEAD
ANANTAPUR & KADAPA (YSR)

merch.

Name & Designation, Signature of authorized Representative of applicant

Name & Designation, Signature of Concerned field authority of NH. / PWD / BRO

GA. VENKATESH

ANANTAPUR & KADAPA (YSR)

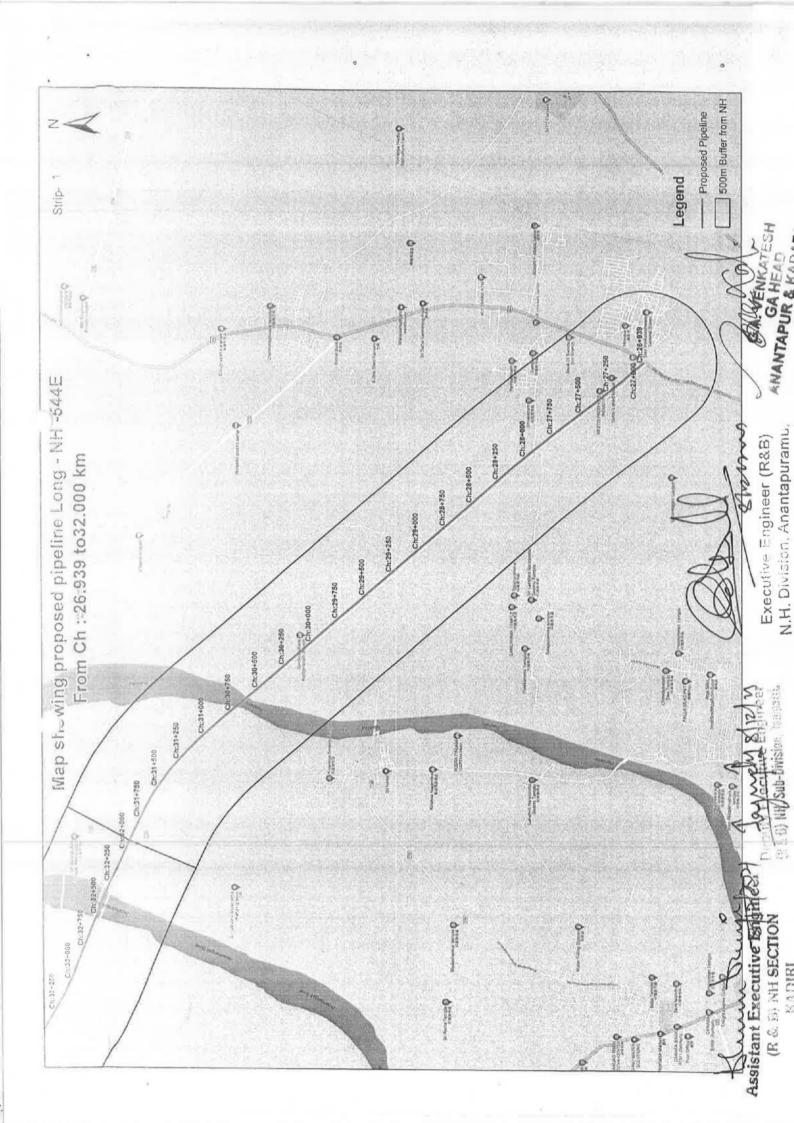
0

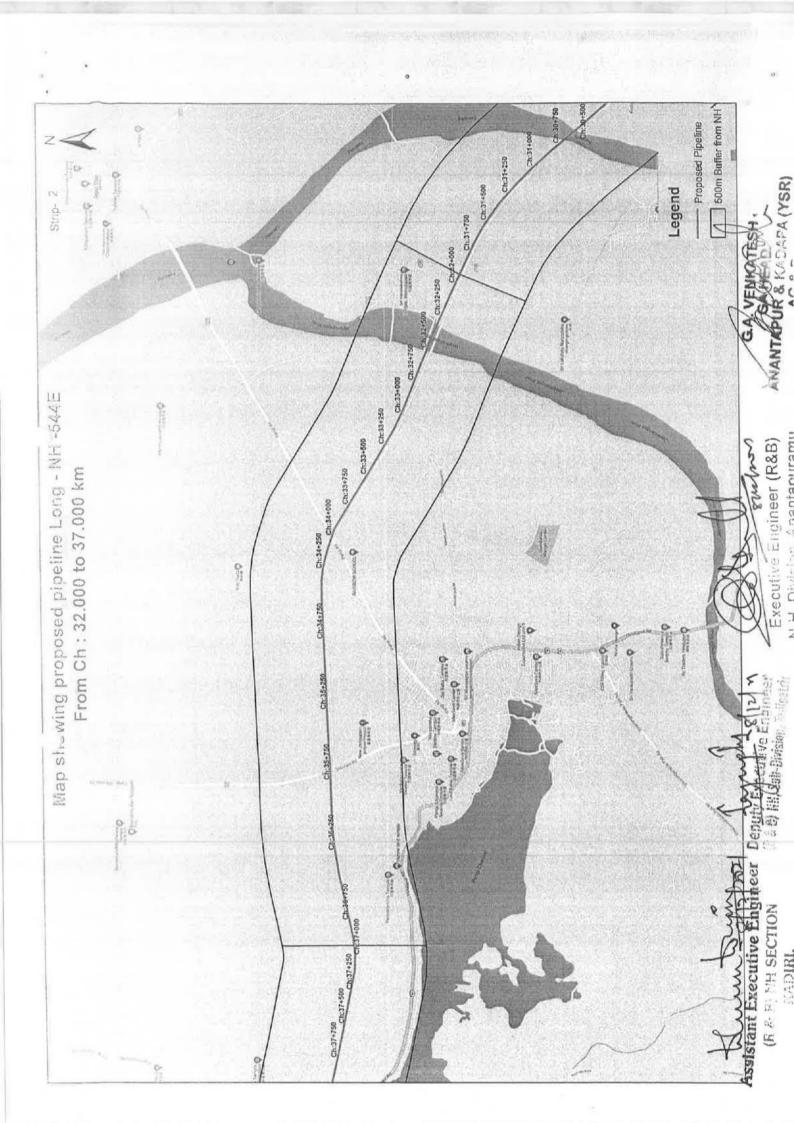
Assistant Executive Busineer

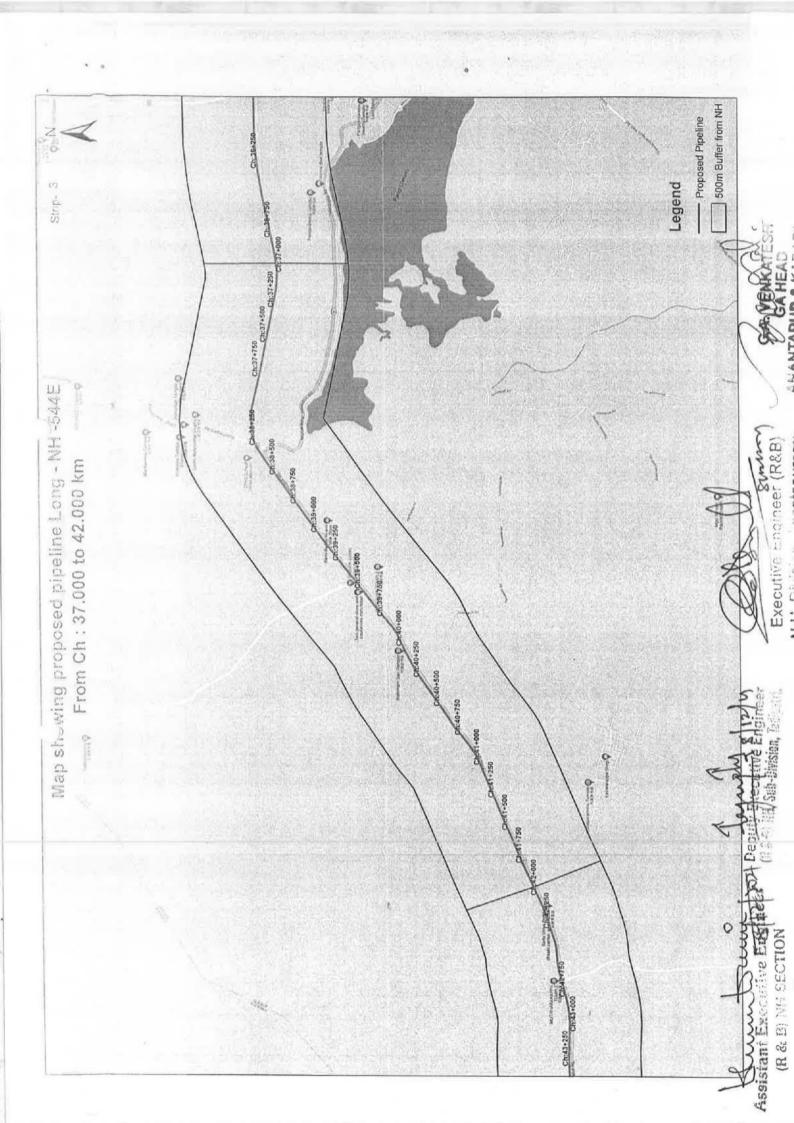
(R & B) NH SECTION KADIRI. Deputy Executive Engineer (R & B) NH, Sub-Division, Tadipatri.

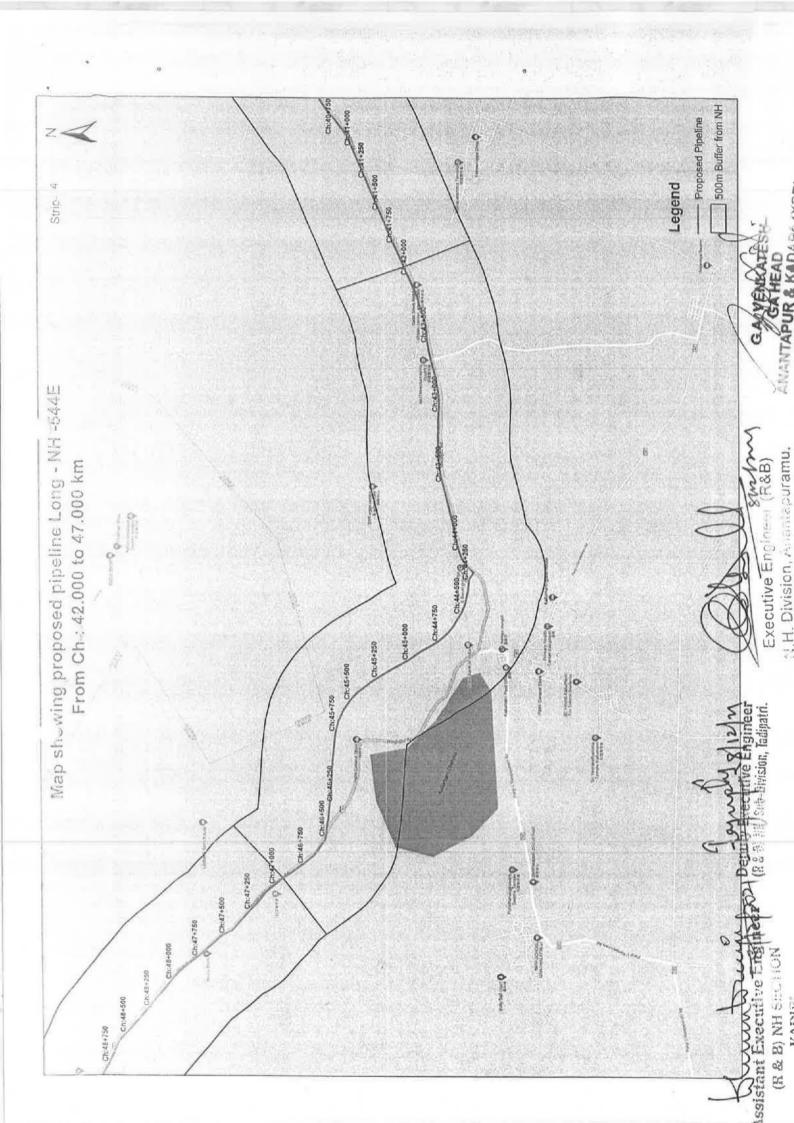
Executive Engineer (R&B)
N.H. Division, Anantapuran.

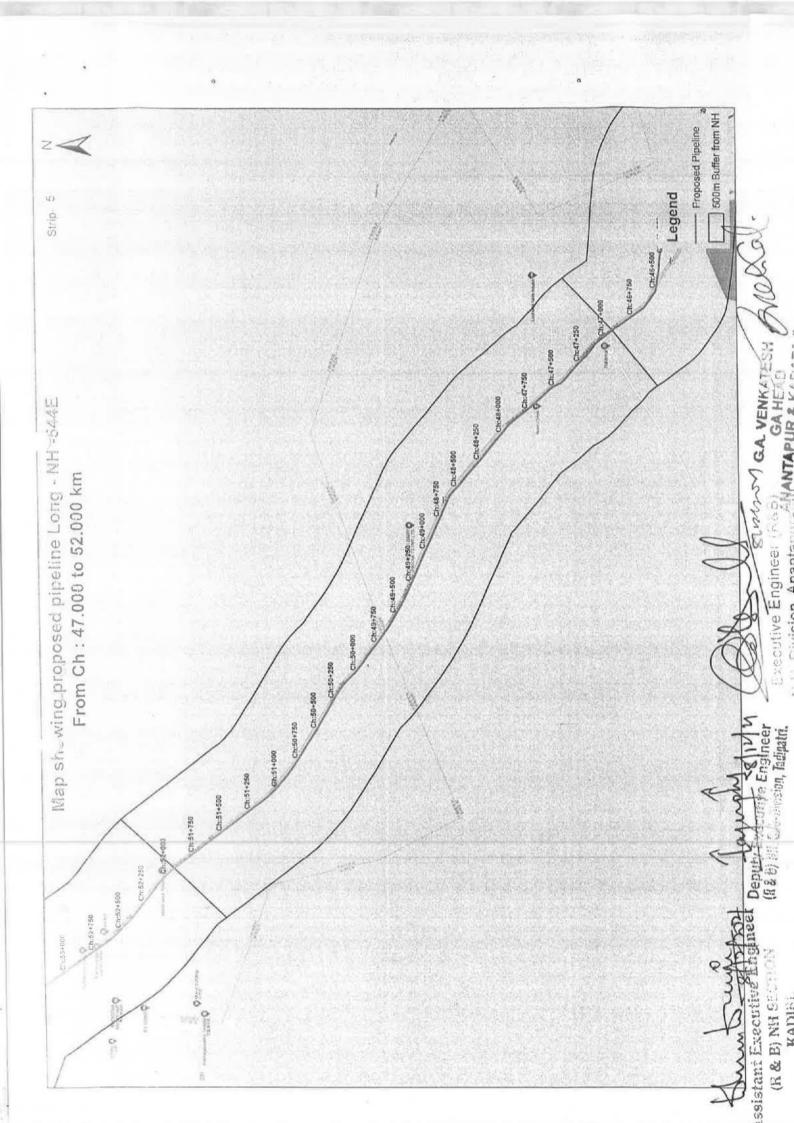
Superintending Engine R & B) NH Circle, Anantapura

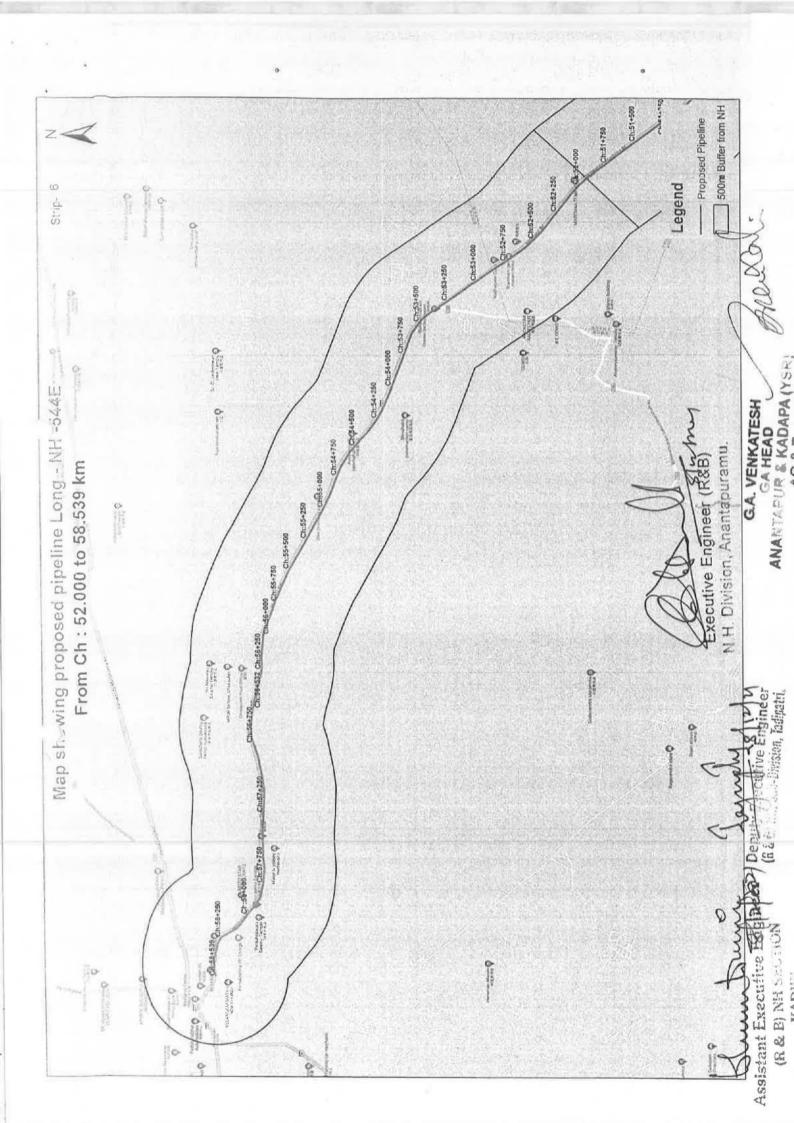


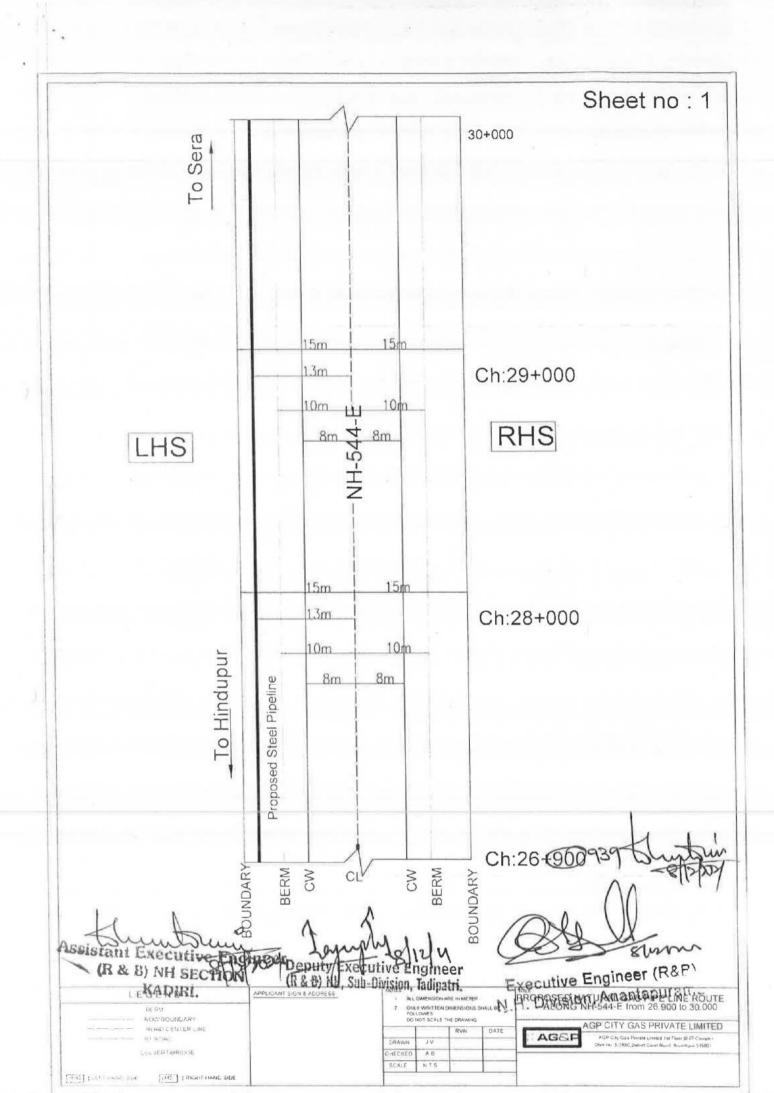


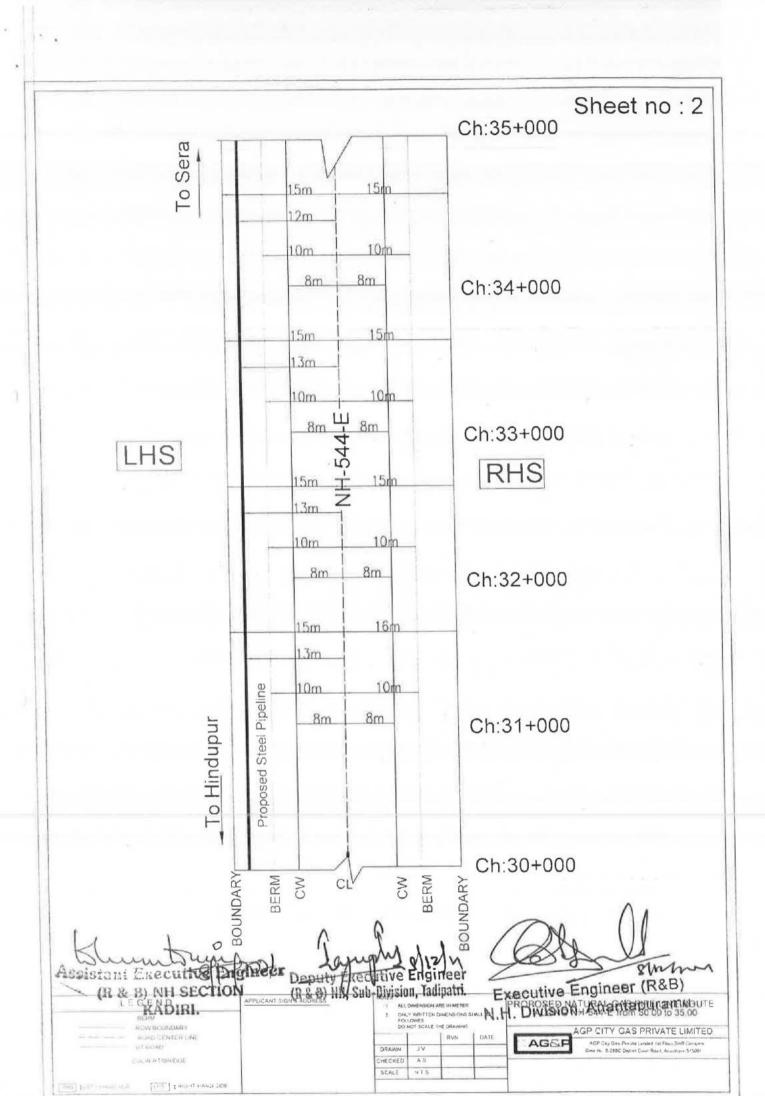


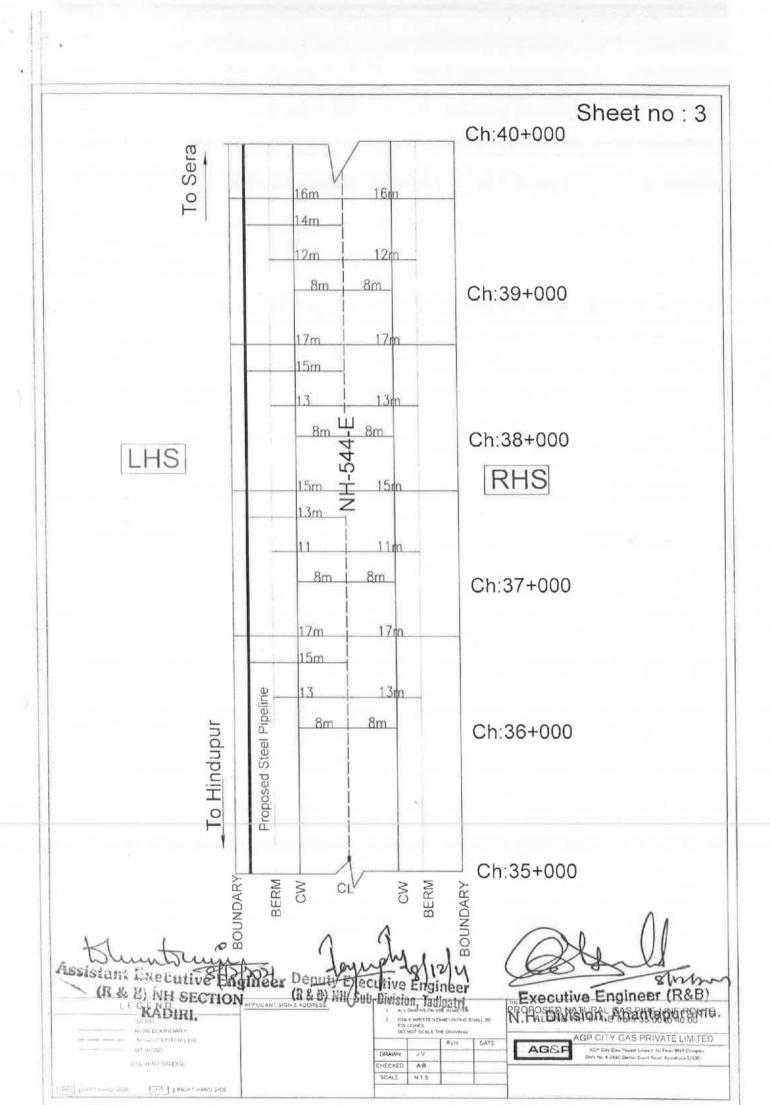


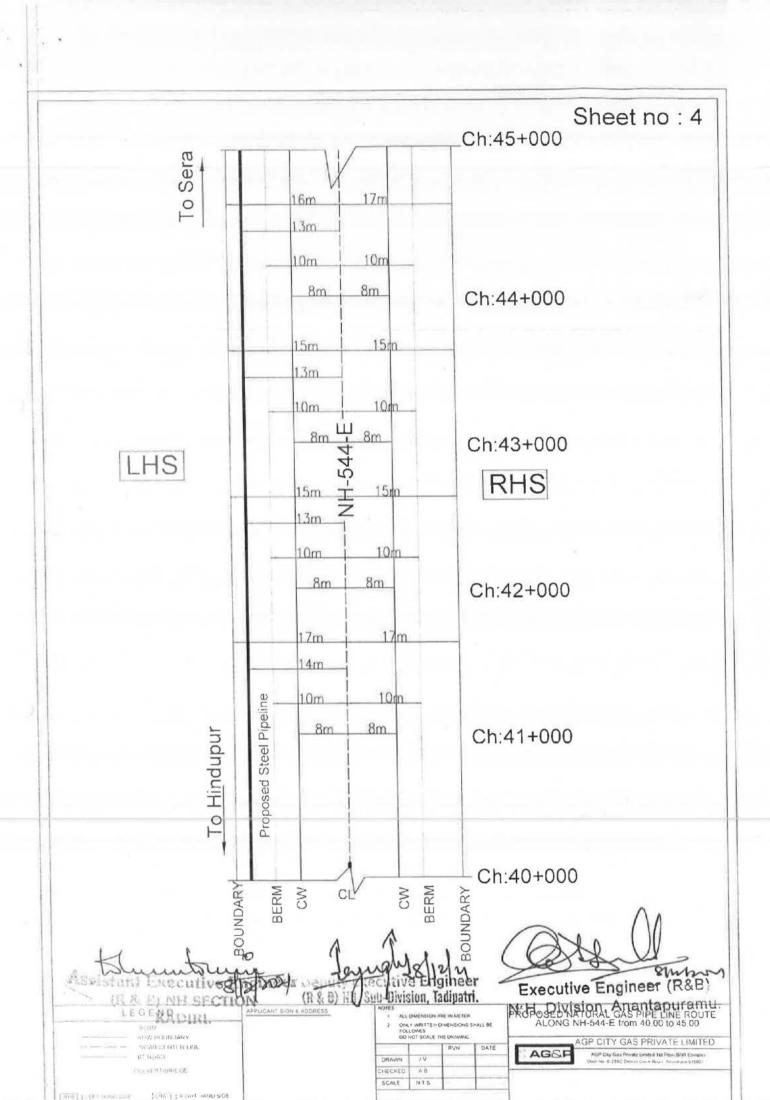


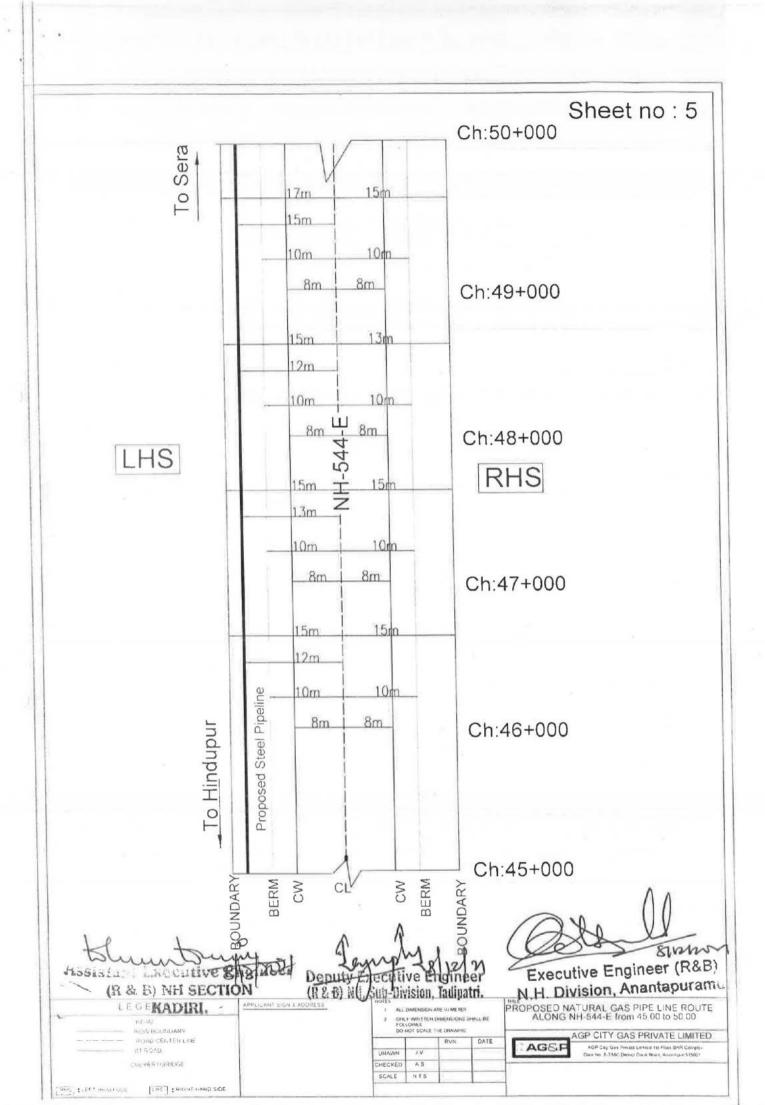


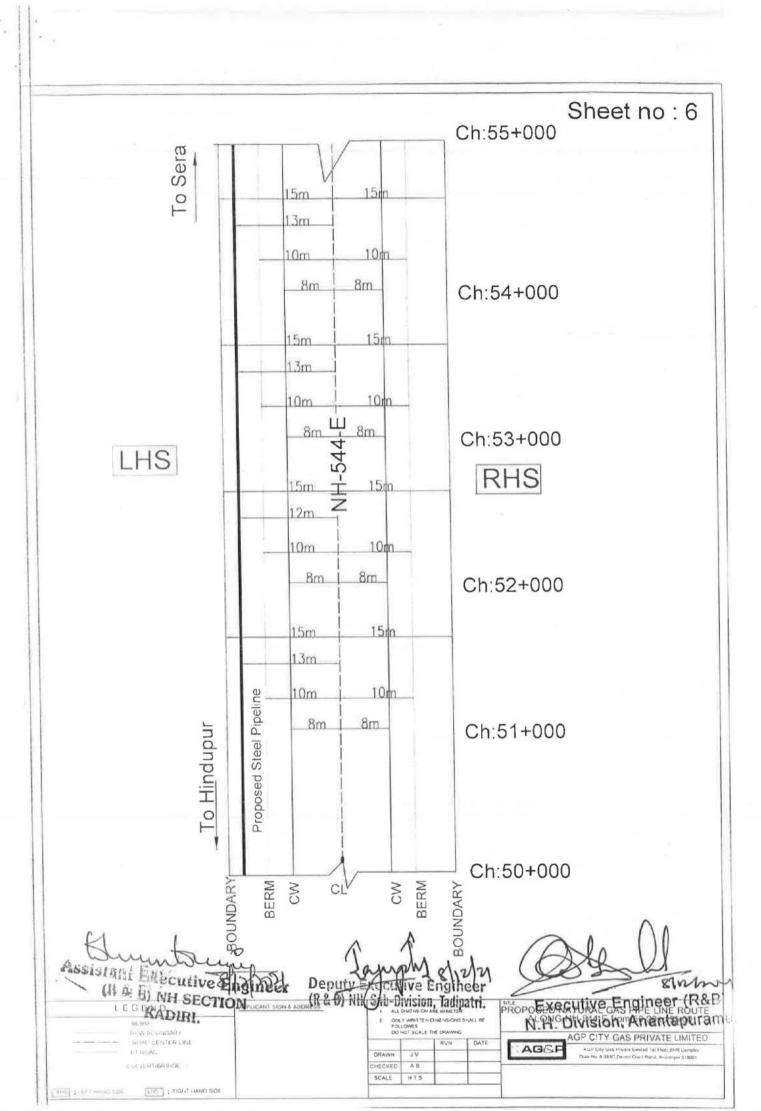












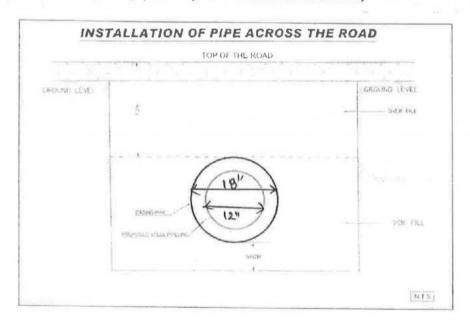


CROSSING METHODOLOGY - NHAI/NH/R&B ROADS

This methodology is submitted for laying & crossing of NHAI/NH/R&B Roads.

fall?

Typical crossing drawing and pipeline specific details are as below;



The laying of pipeline across the National Highway / State Highway shall be carried out by Trench Less Technique i.e. either by Boring or Ramming of carrier pipe or by Micro-Tunneling or by Horizontal Directional Drilling without disturbing the normal traffic on the Highway. All the safety measures shall be taken during execution of pipeline laying work across the National Highway/State highway.

The actual procedure shall be decided best on the Geo Technical report conforming the soil strata and ascertaining the correct profile of the watercourse or other obstacles to be crossed.

Boring

Boring is the most popular and simplest procedure for crossing of highways and major roads with heavy traffic. Similar to a directional drill for river crossings, the road bore is accomplished with a horizontal drill rig, or boring machine. The boring machine drills a hole under the road to allow insertion of the pipe. In most of the cases, a casing is first installed in the hole, and the carrier pipeline is inserted inside the casing. The benefit of the road boring is that it allows installation of the pipeline without disrupting traffic.

Carrier pipe shall be laid inside the casing pipe. Generally, diameter of casing 150mm higher than the carrier pipe. The casing pipe shall be made of approved steel with eer (R) epoxy coating (Internal and External) or approved reinforced concrete p of casing pipe shall be decided so as to take all the external load during ton

(R & O) NH/Sub Division, Tadipatri. (E BE) NH SEC KADIRI.



after completion of work. 1:100 slopes will be provided towards drain during installation of the casing pipe. The casing pipe will be extended a minimum of 600 mm beyond the toe of the slope or base grade or 90 mm beyond the bottom of the drainage ditch whichever is greater.

Inserting the Casing

The inserting of casing pipe will start only after the working pits have been constructed and finished completely and the assembly between the wall and the driving unit has been carried out. During the driving process a cutting head will be pushed gradually into the virgin soil. As the insertion progresses, the soil excavated by the cutting head will be removed using a soil transportation device. The excavation face will under no circumstances go beyond the cutting head.

Where necessary, the work will be carried out by exercising a counter - pressure at excavation face to prevent any water from bursting through. The front face will be at all times be sealed tight against water and soil. The cutting head will be manageable by itself and provide with the necessary guiding jacks which will be able to be driven independently. In case of driving with pressurized air as front support, the air pressure will be constantly maintained where there is a danger of water seepage and /or collapse.

The casing will have a sufficient number of injection openings to enable lubrication of the casing, during driving, between the soil and the outside wall with thixotropic or equivalent fluids in order to reduce soil friction. After the insertion operations, the injection openings will be sealed to air -and-water-tightness.

Following measurements shall be taken during the driving operation.

- Measurement of the number of meters casing inserted, including the cutting head in each work shift of 8 hours.
- Measurement of the peak pressure of the main jacks and that of any intermediate driving stations required to start moving the casing at the commencement of the work of each work shift;
- Measurement of the center of the cutting head in X, Y and Z co-ordinates after driving each pipe with an accuracy of 5 mm and comparison with a fixed center line system independent of the driving wall and casing train;
- The automatic recording of the front face support pressure (drilling fluid, air, soil, water)

The maximum permitted deviation throughout the entire duration of the driving process in 10 cm both vertically and horizontally measured in relation to the connection line of the centers of the bore holes in the entry and exit working pit walls.

Inserting Carrier pipe through the casing

When the pipe is insert into the casing, the presence of the Executive Engineer (R&B) representative is required. The insertion will be carried out with a sufficient number of suitable machines.

Assistant Executive Dans Proper Deputy Executive Engineer (R & B) NH Section (R & B) NH Sub-Division, Tadipatri.

GA. VENKATESH ANANTAPUR & KADAPA (VA



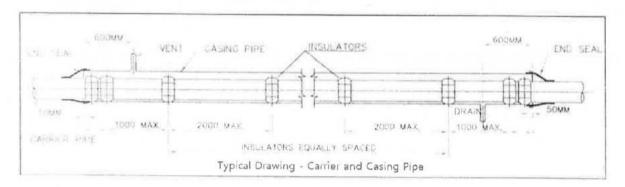
The pipeline will be kept completely in line with the casing. Damage to the coating will be excluded altogether. The progress of the pipeline in the casing will be gradual and under control. The front end of the pipe will be equipped with a slider-shoe and drawn by a cable through the casing.

The casing pipe will be filled by sand / bentonite slurry filling (by pumps). Both extremities of casing will be sealed in an appropriate manner.

Installing Space Collars/Insulators

The spacer collars will be placed at 2.00m from each other. At the extremities of the casing, two spacer collars will be placed whereby the outer spacer collars will be located at least 30cm inside the casing.

The support points of the successive spacer collars may not be located in one line but will be regularly staggered. The spacer collars will be made completely of HDPE material with a minimum height of 25cm. Electrical insulation between the casing and carrier pipe shall be checked with megger time to time.



Site Restoration and Installation of Vent, Drain and Warning Sign Board

After installation of casing and carrier pipe the road shall be restored to the satisfaction of concern authorities. The installation of vent and drain shall be installed at both the ends of crossing. Warning sign boards indicating the warning about flowing of high pressure natural gas and telephone numbers of the concern maintenance office shall be installed on both side of the high way as per drawing.

(R & B) Nil, Sul-Division, Tadipatri.

Executive Engineer (R&B)

N.H. Division, Anantapuramu.

ANANTAPI

KADIRI.

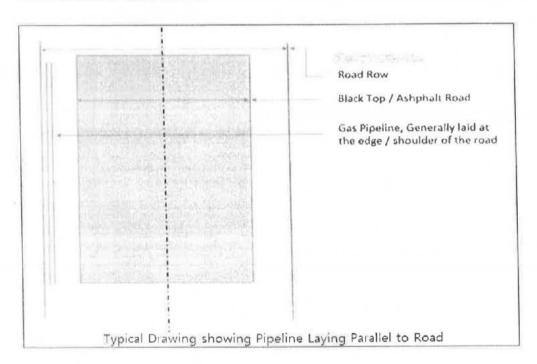
(R & E) NH SECTION



Open-Cut laying (parallel to Road) within RoW of NHAI/NH/R&B Roads

1. Pre-Excavation Planning

- o Route survey is initiated for proposed area of laying
- o Route finalized keeping safety, construction and operation ease
- o Normally, pipeline is laid at the edge of road on berm / soil
- Joint site visit; followed by Permissions from concern authorities prior to start of work
- Before starting of work route marking is done
- Presence of other utilities like water line, cables etc are identified with the help of Trial Pits and/or Cable Locator



2. Excavation

- o Risk Assessment and mitigation is done for route including U/G utilities
- Work area is isolated properly with barricades and display boards
- Excavation soil is kept away from trench edge
- Native soil is kept separate for backfilling purpose
- Activity shall be planned in a manner to cause minimum inconvenience to general public

3. Pipeline Laying and Backfilling

Upon reaching to desired depth of excavation, pipeline laying to desired depth of excavation.

Visual inspection of trench is done to ensure that there is not sharp objects inside the trench; and desired depth of trench is done

Asserting Executive Engineer Deputy Executive Engineer (R & B) NH SECTION (R & B) NH Sub-Bivision, Tadipatri. KADIRI.

G.A. VENKATESH GA HEAD ANANTAPUR & KADAPA (Y AG & P

emi



- Soft Soil bedding is provided for 100/150mm for normal and rocky strata respectively
- o Pipeline is lowered at the center of trench
- o Soft Soil padding is provided for 100mm above the pipe
- Native soil is backfilled after removing stones, sharp edge objects
- Warning tape is laid at 0.5 m depth to safeguard the pipe
- Watering and stage-wise soil compaction is done to avoid depression of trench
- o Crowning of trench is done for about 200-300mm for settling backfilled material
- After backfilling to of trench near to original condition, NOC from authority shall be obtained by AG&P Contractor

HSE Plan for National Highway/State Highway Roads

- 1. Identify the underground utility during joint visit with concerned authority. Risk identified during site visit report will be mitigated with proper risk assessment.
- 2. The location and status of underground services shall be marked on ground and discussed in Toolbox Talks.
- Site Specific Risk assessment according to site risks and dynamic risk assessment to be done prior to execution of work.
- 4. Excavation area site to be visually inspected for other utilities, source of ignition etc.
- 5. All efforts to be made to minimize the night work.
- 6. Assess the requirement for personnel to enter and egress from the excavation.
- Contractor supervisor must discuss the job with AG&P engineer including the risk involved, any abnormal situation, possible failure of machines/ system, human error etc.
- 8. Assess the impact that excavation may have on any adjacent structures.
- 9. Manual excavation laborer involved should be experienced with proper HSE induction.
- 10. PPE is must for all the persons involved and to be ensured by the supervision.
- 11. Proper barricading to be ensured at the worksite.
- 12. Trenching to be supervised with experienced supervisor.
- 13. As the trench depth increases, step cutting to be done for proper exit in case of emergency.
- 14. Buddy system to be followed for keeping risk of confined space at minimal levels. Proper communication method and regular communication to be done with the excavation workers involved will be done.
- 15. The trench depth shall be increased uniformly in accordance with minimum permissible radius of bend at approaches to crossing and shall have proper slope for the trench side in order to avoid slide / collapse.
- 16. Excavation and other material to be stored away from edge of the trench.
- 17. Workers should not be permitted to work in excavations where water accumulated or is accumulating unless adequate precautions have been taken.
- 18. All lifting tool and devices used should be well maintained and approved by competent authority.

 Executive Engineer (R&B)
- 19. The site must be checked daily for tidiness and safety before Work Division. Anantapurate

Deputy Flective Engineer (R & B) NH, Sub-Division, Tadipatri.

GA VENKATESH GA HEAD ANANTAPUR & KADAPA (V.

(R & B) NH SECTI**ÖN** KADIRI.



- 20. Movement of pipe section to be done with proper risk assessment of the site conditions.
- 21. Only trained rigging personnel to be deployed for this activity.
- 22. Personnel around the machine should be cautious for overhead falling objects.
- 23. Guiding ropes to be used for directing pipe section for unloading.
- 24. Lowering of pipe to be done in closed supervision of the AG&P team / representatives
- 25. Pipe to be placed in the center of underground utility for which crossing need to be done.
- 26. Underground utility to be properly safeguarded during carrying out these activities.
- 27. Proper backfilling to be ensured after completion of the activity.
- 28. First aid kit to be ensured at site.
- 29. Special attention to be paid by the site engineer to the following: -
 - The stability of the ground
 - Adequacy of supports;
 - Undue loading to trench edges:
 - Clear working space;
 - Adequate means of entry and exit;

Provision of suitable protection to prevent persons falling into the trench.

(R & B) NH SECTIO

KADIRI.

G.A. VENKATESH JR & KADAPA (YSR)

(R & B) hill, Sub-Division, Tadipatri.

Executive Engineer (R&B) N.H. Division, Anantapurame