

Government of India

Ministry of Road Transport & Highways

Regional Office, Vijayawada

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

Dated: 25.07.2022

Invitation of Public Comments

Sub: Proposal for Permission for laying underground steel/MDPE gas pipeline of 125mm and 200mm (5" & 8") dia. along NH-42 by M/s AGP Gas Pvt. Ltd. from km 76/000 to km 79/500 (LHS) and crossing at km 76/980 of Uravakonda - Ananthapuramu - Madanapalli - Krishnagiri road for a total length of 3520m in Ananthapur district 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 07.07.2022 for laying underground steel/MDPE gas pipeline of 125mm and 200mm (5" & 8") dia. along NH-42 by M/s AGP Gas Pvt. Ltd. from km 76/000 to km 79/500 (LHS) and crossing at km 76/980 of Uravakonda - Ananthapuramu - Madanapalli - Krishnagiri road for a total length of 3520m in Ananthapur district of Andhra Pradesh by the Horizontal Directional Drilling method and open trench method.

2. 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.

3. 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,



(Venkataiah M)

Assistant Engineer,

For Regional Officer, MoRTH, Vijayawada

Encl: As above

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, Ananthapuramu.
- 4) The Executive Engineer(R&B), NH-Division, Ananthapur.
- 5) M/s AGP City Gas Private Limited, 1st floor, BNR Complex, D.no. 8-288C, District Court Road, Ananthapur - 515001.

Government of Andhra Pradesh
Roads & Buildings Department

From,
Sri. V. Ramachandra, M.Tech.,
Chief Engineer (R&B),
National Highways & CRF,
Room no. 412, State HODs Offices Bldg,
MG Road, Vijayawada-520010.

To,
The Regional Officer,
MoRT&H, 4th Floor,
Near Kanaka Durga Varadhi,
Rani gari Thota, Krishna Lanka,
Vijayawada.



Lr. No. Road Cutting/NH 42/DCE(NH&CRF)/EE/DEE6/AEE3 dt. 07.07.2022

Sir,

Sub:- (R&B) NH Circle, ATP - (R&B) NH Division, ATP - Permission for laying of gas pipeline underground Steel/MDPE gas pipeline along NH 42 Rapthadu Highway junction to Pangal road junction from Km 76/0 to 79/500 (LHS) of Uravakonda-Madanapalli-Krishnagiri road in Ananthapuramu district of Andhra Pradesh - Proposals furnished - Permission Requested - Regarding

Ref:- 1. Ministry Circular No. RW/NH-33044/29/2015/S&R(R) dt. 22.11.2016
2. Lr. No. RO/VJA/Misc24BAccess/Utility/7 dt. 13.04.2017 of the RO, MoRT&H, Vijayawada
3. Lr. No. NH-42/RoadCutting/AGPCityGASpipeline/SENH/ATP/DYSE/ JTO/2022-23 dt. 26.05.2022 of the Superintending Engineer (R&B), NH Circle, Ananthapuramu

In the reference 3rd cited, the Superintending Engineer (R&B), NH Circle, Ananthapuramu has submitted proposals for permission for laying gas pipeline along NH 42 for a length of 3520m from Km 76/000 to 79/500 (LHS) with road crossing at Km 76/980 in Ananthapuramu district in Andhra Pradesh.

The proposal has been examined in this office as per the guidelines issued by the Ministry in the reference 1st cited and the details are as follows:

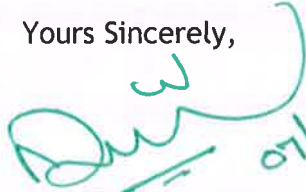
1. The total License Fee is Rs. 3,44,445/- and the performance Bank Guarantee Fee is Rs. 8,80,000/-
2. The proposed OFC cable is Km 76/000 to 79/500 (LHS) with road crossing at Km 76/980.
3. Total length of the proposed road cutting is 3520m and width of 0.80m.
4. The firm has proposed that the OFC cable will be laid through both open trench and HDD methods, whichever applicable as per the site conditions.
5. Further, the OFC cable will be laid at a depth of 1.20m from top of adjacent natural GL.

The firm, M/s AG&P City Gas Pvt. Ltd., has submitted the checklist, undertakings and necessary authorisation certificate from the Ministry of Petroleum and Natural Gas Regulatory Board, Govt. of India, required to be submitted for according permission and approval for laying of the utility as stipulated in the references 1st and 2nd cited. A copy of the documents submitted by the firm is herewith furnished in duplicate.

In this regard, it is requested to accord permission for laying the gas pipeline along NH-42 for a length of 3520m from Km 76/000 to 79/500 (LHS) with road crossing at Km 76/980, so as to enable them to commence the laying of the gas pipeline.

Encl: Checklist, Undertakings, 2 original copies of License Deeds & necessary registration certificate

Yours Sincerely,


For Chief Engineer (R&B),
NH & CRF, A.P., Vijayawada

Copy to:

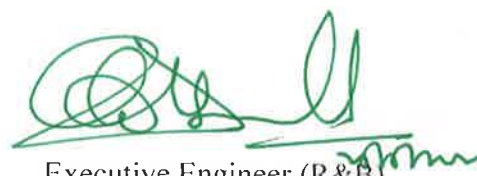

1. The Superintending Engineer (R&B), NH Circle, Ananthapuramu for information.
2. The Executive Engineer (R&B), NH Division, Ananthapuramu for information.

CERTIFICATE

1. Under signed has examined the proposal of the applicant for Laying of Underground Steel/MDPE Gas Pipeline along Old NH-205 (New NH-42) Rapthadu HWY Junction to Phangal Road Junction from Km 76/000 to 79/500 (LHS) of Uravakonda – Ananthapuramu - Madanapalli - Krishnagiri 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.
2. 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.
4. 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.
6. The record of previous approval, if any has been considered and the copy of same is enclosed with the proposal.


Assistant Exe. Engineer(R&B)
NH Section, Anantapuramu


Deputy Exe. Engineer (R&B)
NH Subdivision, Anantapuramu.


Executive Engineer (R&B)
NH Division, Anantapuramu

Superintending Engineer
R & B NH Circle, Anantapuramu

INSPECTION REPORT

Permission for Laying of Underground Steel/MDPE Gas Pipeline along Old NH-205 (New NH-42) Rapthadu HWY Junction to Phangal Road Junction from Km 76/000 to 79/500 (LHS) of Uravakonda – Ananthapuramu - Madanapalli - Krishnagiri road in Anantapuramu District.

We have inspected site, with reference to the proposal submitted by AG&P City Gas Private Limited., Anantapur for the proposal laying of Underground Steel/MDPE Gas Pipeline along Old NH-205 (New NH-42) Rapthadu HWY Junction to Phangal Road Junction from Km 76/000 to 79/500 (LHS) of Uravakonda – Ananthapuramu - Madanapalli - Krishnagiri road for a length of 3.500Kms along the road". The following points were observed and mentioned below.

1. The total length of the Underground Steel/MDPE Gas Pipeline is 3.50 Kms, along the Old NH-205 (New NH-42) road from Km.76/000 to 79/500 (LHS).
2. The AG&P City Gas Private Limited., Anantapur has Proposed to lay Underground Steel/MDPE Gas Pipeline(at a depth of 1.20 Mts to 3.00 Mts below ground level)to a length of 3.50 Kms and by Open trench method(at a depth of 1.20 Mts to 3.00 Mts below ground level).
3. The ROW of the road varies from 25 Mts to 30Mts 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 for 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.

Road crossing in the proposal at ch: 76.980 crossing at Rapthadu service road (BT road).

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.8,80,000/- in the shape of Bank Guarantee and license fee Rs. 2,58,334/- (for five years) in the shape of DD may be obtained from AG&P City Gas Private Limited., Anantapur.

[Signature]
19/5/22

Assistant Exe. Engineer
(R&B) NH Section, Anantapuramu

[Signature]
19/5/22

Deputy Exe. Engineer (R&B)
NH Subdivision, Anantapuramu.

[Signature]
19/5/22

Executive Engineer (R&B)
NH Division, Anantapuramu

[Signature]
11/6/22

[Signature]
19/5/22

Superintending Engineer
R & B NH Circle, Anantapuramu.

CHECK LIST

Rapthadu NH JN to Phangal Road JN Section of NH-205 (old-42)

Guidelines for processing the proposal for laying Utility / Gas Line in the land along National Highway vested with NH/PWD/BRO

Sr. No	Item	Information / Status of Crossing – 1	Remarks
1	General Information	Construction of Gas Pipeline in Anantapur, / Andhra Pradesh	
1.1	Name and Address of the Applicant / Agency	M/s. AGP City Gas Private Limited, 1st Floor, BNR Complex, Door No. 8-288C, District Court Road, Ananthpur-515001, Andhra Pradesh	
1.2	National Highway Number	NH-205	
1.3	State	Andhra Pradesh	
1.4	Location	Rapthadu NHAI Jn to Phangal Road Jn)	
1.5	Chainage in KM	1) From 76/000 to 79/500 KMS LHS, Crossing at Chainage 76/980	Centreline chainage of NH
1.6	Length in Meters	m	
1.7	Width of Available ROW		
	(a) Left side from center line towards increasing chainage / km direction	14mtrs	
	(b) Right side from center line toward increasing chainage/ km direction	14mtrs	
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	
1.11	Details of already laid services, if any along the proposed route.	OFC, Water pipeline, electrical lines etc.	
1.12	Number of existing lanes (2/4/6/8 lanes)	2/4	

[Signature]
Executive Engineer (R&B,
NH Division, Anantapuramu

[Signature]
G.A. VENKATESH
GA HEAD
ANANTAPUR & KADAPA (YSR)
AG & P

[Signature]
Deputy Executive Engineer
(R & B) NH SUB-DIVISION

[Signature]
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

Sr. No	Item	Information / Status of Crossing - 1	Remarks
1.13	Proposed Number of lanes (2 land with paved shoulders 4/6/6/8 lanes)	-	
1.14	Service road existing or not	No	
	If yes then which side		
	(a) Left side from Center line		
	(b) Right side from center line		
1.15	Proposed Service Road	No	
	(a) Left side from center line		
	(b) Right side from center line		
1.16	Whether proposal to lay Gas Pipeline is after the service road or between the service road and main carriageway	NA	
1.17	Whether carrying of sewage / gas pipeline has been proposed on highway bridges. Then mention the methodology proposed for the same	NA	
1.18	Whether carrying of sewage / gas pipeline has been proposed on the parapet / any part of bridges. If yes, then mention the methodology proposed for the same	NA	
1.19	If crossing of the road involved If yes, it shall be either encased in pipes or through structure on conduits specially built for that purpose at the expenses of the agency owning the line.	NA	
	(a) Whether existing drainage structures are allowed to carry the utility pipelines.	NA	
	(b) Is in on a line normal to NH	NA	
	(c) What is the distance of crossing the utility pipelines from the existing structures. Crossing shall not be too near the existing structures on the National Highway, the minimum distance being 15 meter.	NA	
	(d) The casing pipe (or conduit pipe in the case of electric cable) carrying the utility line shall be of steel, cast iron, or reinforced cement concrete and have adequate strength and be large enough to permit ready withdrawal of the carrier pipe/cable. Mention type of casing.	NA	

N. S. S. S. S.
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

Cen 19/5/22
Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.

G.A. Venkatesh
GA HEAD
ANANTAPUR & KADAPA (YSR)
AG & P

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	(e) Ends of the casing / conduit pipe shall be sealed from the outside, so that it does not act as a drainage path.	NA	
	(f) The casing / conduit pipe should, as minimum extend from drain to drain in cuts and toe of slope toe of slope in fills	NA	
	(g) The top of the casing / conduit pipe should be at least 1.2 meter below the surface of the road subject to being at least 0.3m below the drain inverts. Mention the proposed details	NA	
	(h) Mention the methodology proposed for crossing of road for proposed sewerage / Gas Pipeline. Crossing shall be by boring method (HDD) (Trenchless technology) especially where the existing road pavement is of cement concrete or dense bituminous concrete type.	NA	
	(i) The casing / conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.	NA	
2	Document / Drawings enclosed with the proposal	Yes	
2.1	Cross section showing the size of trench for open trenching method (is it normal size of 1.2m deep x 0.3m wide) (i) Should not be greater than 60cm wider than the outer diameter of the pipe (ii) Located as close to the extreme edge of the right-of-way as possible but not less than 15 meter from the centre-lines of the nearest carriageway. (iii) Shall not be permitted to run along the National Highways when the road formation is situated in double cutting. Nor shall these be laid over the existing culverts and bridges. (iv) These should be said that their top is at least 0.6 meter below the ground level so as not to obstruct drainage of the road land.	Yes	
2.2.	Cross Section showing the size of pit and location of Gas Pipeline for HDD method	NA	
2.3	Strip plan / Route plan showing Gas Pipeline, Chainage, width of ROW. Distance of proposed, cable from edge	NA	

Sr. No	Item	Information / Status of Crossing - 1	Remarks
	of RoW, important mile stone, intersections, cross drainage works etc.		
2.4	Methodology for laying of sewage / Natural Gas Pipe line	Enclosed	
2.4.1	Open trenching method. (May be allowed in utility corridor only where pavement is neither cement concrete not dense bituminous concrete type. If yes, Methodology of refilling of	Agreed	
	(a) The trench width should be at least 30cm, but not more than 60cm wider than the outer diameter of the Pipe.	Agreed	
	(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 (i) side fill to the level of the top of the pipe and (ii) overfill to the bottom of the road crust.	Agreed	
	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	Not Applicable	

[Signature]
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

[Signature]
Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.

[Signature]
G.A. VENKATESH
GA HEAD
ANANTAPUR & KADAPA (YSR)
AG & P

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	CD works and method of laying. In case of where the carrying of gas pipeline on the bridge becomes inescapable.		
3	Draft License Agreement signed by two witnesses	Enclosed	
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		AG&P Agrees for the same as per requirement of NH
4	Whether performance Bank Guarantee as per Ministry's Circular no. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016 is obtained.		AG&P Agrees for the same as per requirement of NH
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:		
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	
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	Enclosed	

[Signature]
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

[Signature]
Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU

[Signature]
G.A. VENKATESH
GA HEAD
ANANTAPUR & KADAPA (YSR)
AG & P

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	Circular no. RW/NH-33044/29/2015/S&R(R) dated 22/11/2016		
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	Enclosed	
5.10	If the MoRTH/NH considers it necessary in future to move the utility line for any work of improvement or repairs to the road, it will be carried out as desired by the NH at the cost of the agency owning the utility line within a reasonable time of the intimation given.	Enclosed	
5.11	Certificate from the applicant in the following format (i) Laying of Gas Pipeline will not have any deleterious effect on any of the bridge components and roadway safety for traffic (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	Enclosed	
6	Who sign the agreement on behalf of Gas Pipeline agency	Sri. Gumalapalli A Venkatesh Asst. Vice President - Anantapur and YSR Kadapa GA M/s. AGP City Gas Pvt Ltd, Ananthpur	
6.1	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(R) Dated 22.11.2016	Yes, enclosed	

[Signature]
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU


[Signature]
Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.

[Signature]
GA VENKATESH
GA HEAD
ANANTAPUR & KADAPA (YSR)
AGP

Sr. No	Item	Information / Status of Crossing – 1	Remarks
7.2	<p>Certificate from PD in the following format (Yes / No)</p> <p>(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".</p> <p>(ii) for 6-lanning</p> <p>(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".</p> <p>(b) In case feasibility report is not available "I do certify that sufficient ROW is available at site for accommodating proposed six-laning".</p>	Yes, Enclosed	
8	If NH section proposed to be taken up by NH on BOT basis – a clause is to be 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 Kerala Section from Km..... to KM Of NH No. - man build, Operate and Transfer Basis] and therefore, the licenses shall honour the same."	Included in the agreement.	
9	Who will supervise the work of laying gas supply pipeline		
	(a) On Behalf of Applicant	<p>Sri. Gumalapalli A Venkatesh Asst. Vice President - Anantapur and YSR Kadapa GA M/s. AGP City Gas Pvt Ltd, Ananthpur</p>	
	(b) on Behalf of MoRTH / NH	Executive Engineer NH, Ananthapuramu.	
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		


Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU


Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.


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

Sr. No	Item	Information / Status of Crossing – 1	Remarks
	(a) On Behalf of Applicant	Sri. Gumalapalli A Venkatesh Asst. Vice President – Anantapur YSR Kadapa GA M/s. AGP City Gas Pvt Ltd, Ananthpur	
	(b) on Behalf of MoRTH / NH	Executive Engineer NH, Ananthapuramu,	
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 NH
13	If any previous approval is accorded for laying of underground Gas Supply Pipeline	No previous approvals accord at the proposed location.	

Name & Designation, Signature of authorized Representative of applicant

GA VENKATESH
GA HEAD
ANANTAPUR & KADAPA (YSR)
AG & P

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

Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.

Executive Engineer (R&B,
NH Division, Anantapuramu

Superintending Engineer
R & B \ NH Circle, Anantapuramu

[Enclosure to Ministry Circular No. RW/NH-33044/27/2015-S&R(R) dated 22.11.2016]
Format for Maintaining Records of Right-of-Way permission granted for laying OFC / Gas Pipe Line
(to be maintained separately for every NH and State)

Annexure - II

1. Name of the State : Andhra Pradesh

2. Name of the Agency : NH R&B, Ananthapur

3. NH Number : NH-42 (old 205)

Sr No	Location (chainage in Km)	Left of right side of NH (towards increasing chainage from direction)	Section and reach	Kind of service	Name of License and contact address	Date of signing of agreement	Date of validity of agreement	Date of last inspection of site	Any deviation from MOST standard norms	Remarks
1	Chainage 76+980 km to 79+500 km	LHS	Rapthadu Village to Phangal Road Junction	Telecom OFC	Vodafone				No	

[Signature]
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

[Signature]
Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG NH 205 AT KM: 76/000 to 76/980

Rapthadu NH Jn

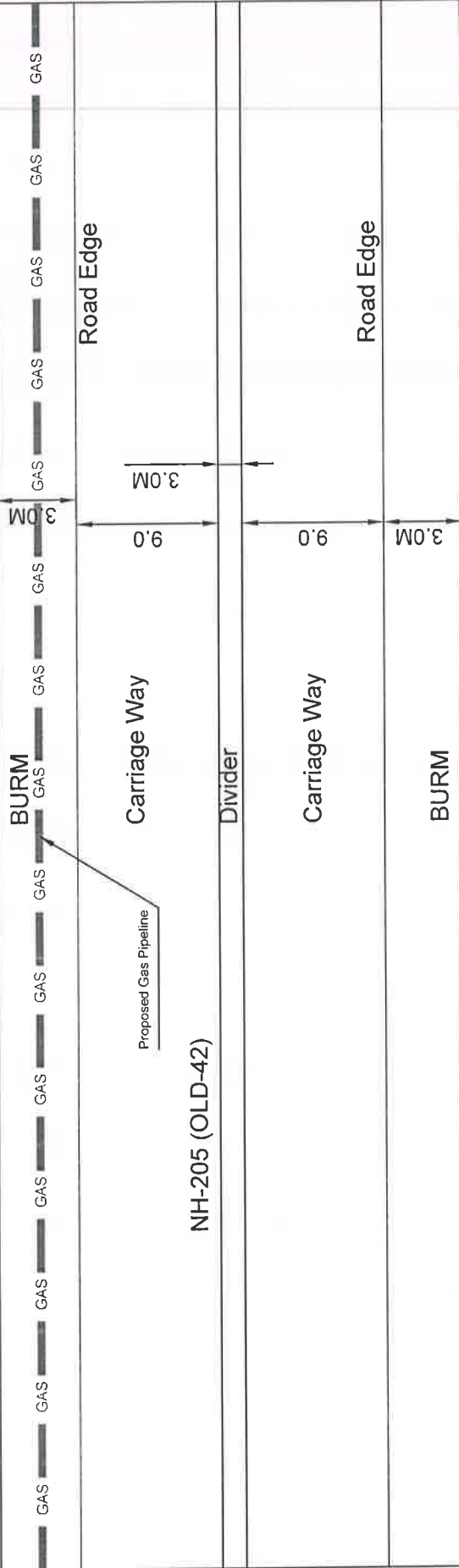
Phangal Road Jn

Ch: 76+000 Ch: 76+100 Ch: 76+200 Ch: 76+300 Ch: 76+400 Ch: 76+500 Ch: 76+600 Ch: 76+700 Ch: 76+800 Ch: 76+900 Ch: 76+980

LHS

ROW

ROW



ROW

ROW

ROW

RHS

LEGEND

- GAS — : PROPOSED PIPELINE
- CULVERT & BRIDGES
- NH BOUNDARY
- C / L OF CARRIAGE WAY
- ROAD MEDIAN
- WATER BODY
- Paver Block
- LHS : LEFT HAND SIDE
- RHS : RIGHT HAND SIDE

APPLICANT SIGN & ADDRESS

NOTES:

- ALL DIMENSION ARE IN METER
- ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
DO NOT SCALE THE DRAWING

DRAWN	RVN.	DATE
CHECKED		
SCALE	N T S	

TITLE:

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG NH-205
AT KM: 76/000 to 76/980

AGSP AGP City Gas Private Limited

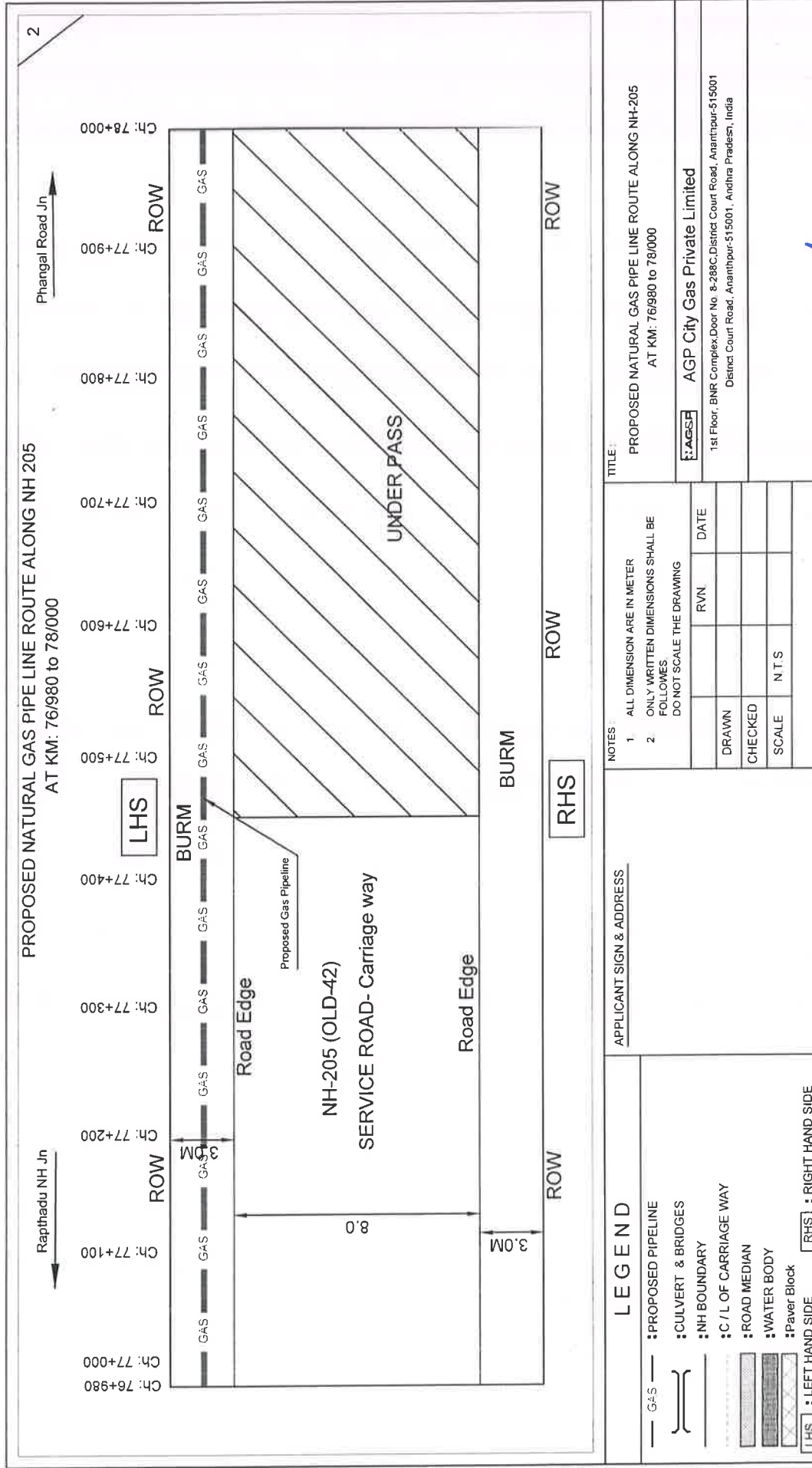
1st Floor, BNR Complex, Door No. 8-288C, District Court Road, Anantapur-515001
District Court Road, Anantapur-515001, Andhra Pradesh, India

Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.

Executive Engineer (R&B,
NH Division, Anantapuramu

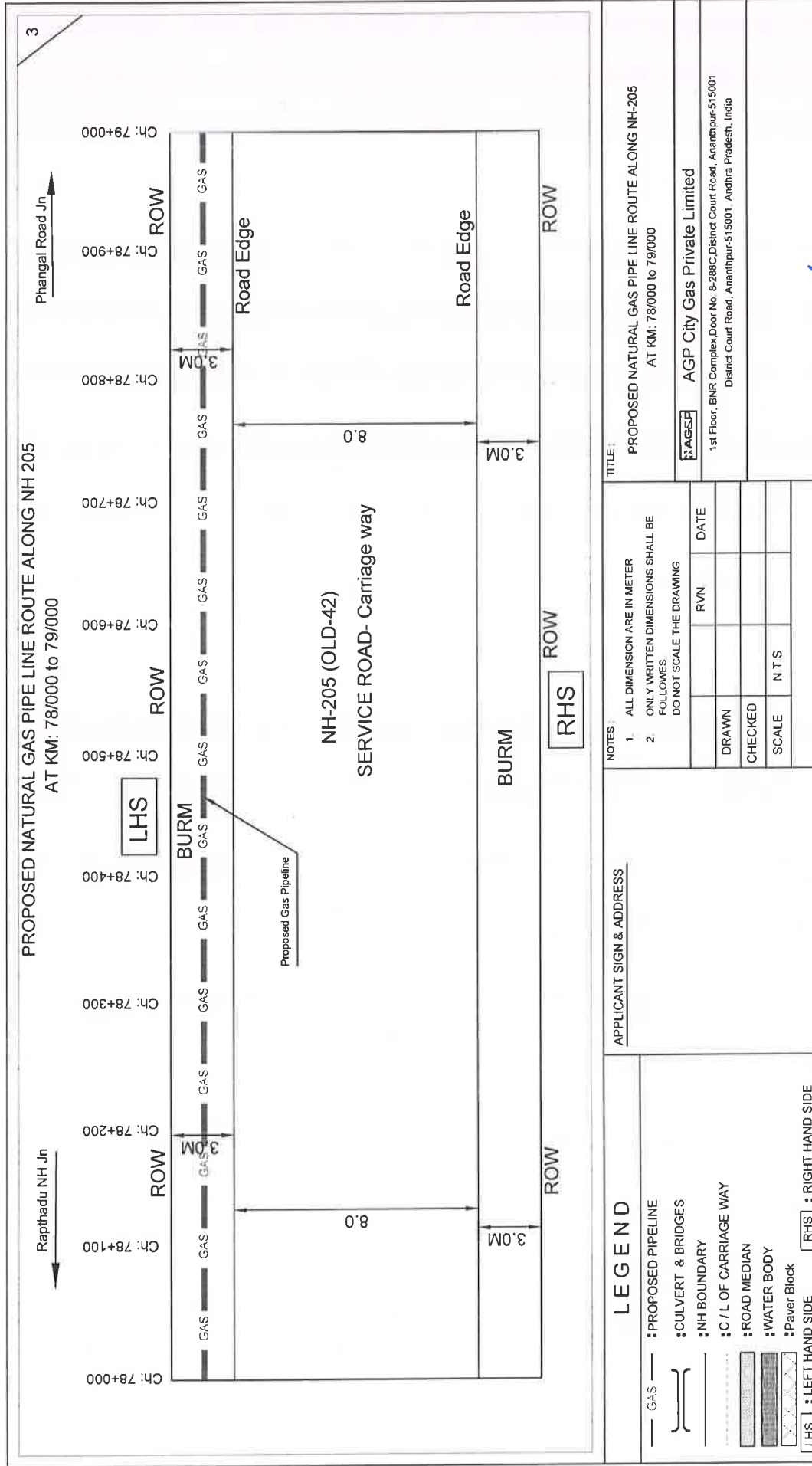
ANANTAPUR & KADAPA (YSR)
AG & P



Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAM

Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAM

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



Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAM.

Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAM.

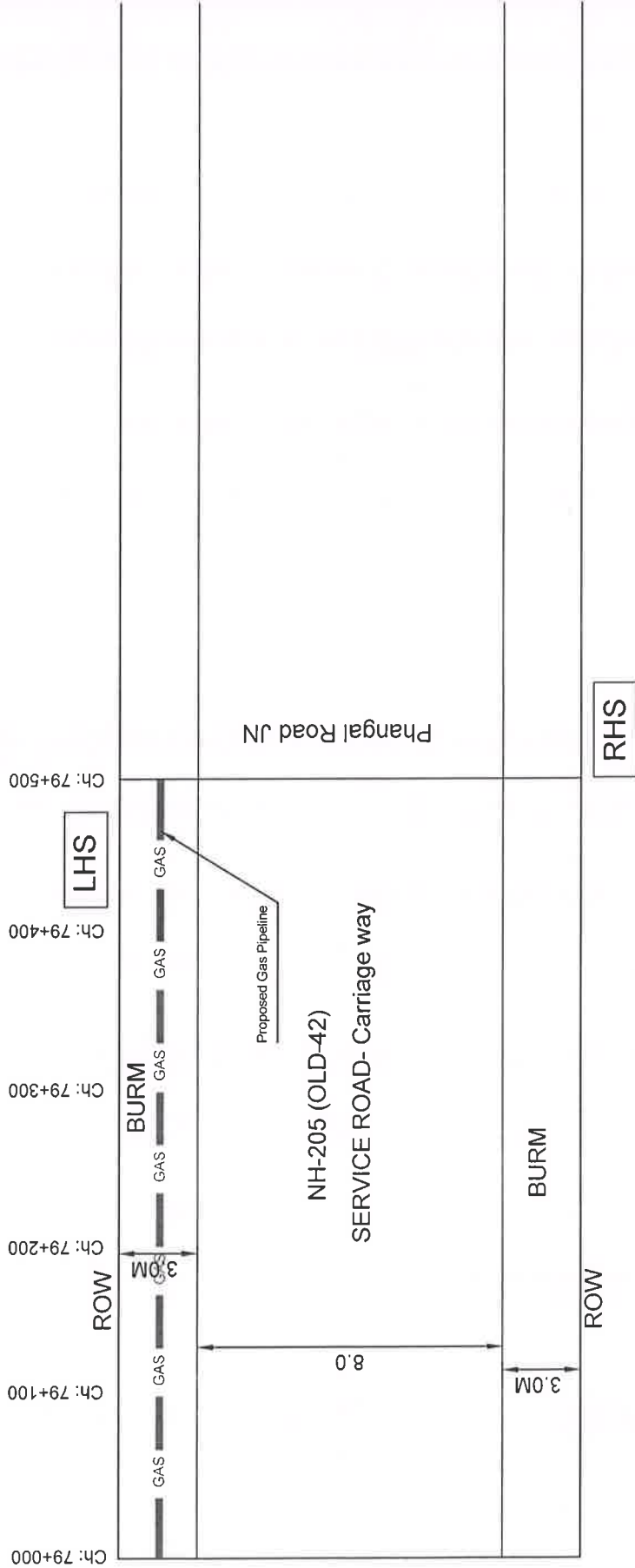
G.A. VENKATESH
G.A. HEAD
ANANTAPUR & KADAPA (YSR)
AG & P

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG NH 205 AT KM: 79/000 to 79/500

Phangal Road Jn

Rapthadu NH Jn

4



LEGEND

- GAS —
- PROPOSED PIPELINE
- CULVERT & BRIDGES
- NH BOUNDARY
- C / L OF CARRIAGE WAY
- ROAD MEDIAN
- WATER BODY
- Paver Block
- LHS : LEFT HAND SIDE
- RHS : RIGHT HAND SIDE

APPLICANT SIGN & ADDRESS

NOTES :

- ALL DIMENSION ARE IN METER
- ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWES.
DO NOT SCALE THE DRAWING

TITLE :

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG NH-205
AT KM: 79/000 to 79/500

AGPS AGP City Gas Private Limited

1st Floor, BNR Complex, Door No. 8-288C, District Court Road, Anantapur-515001
District Court Road, Anantapur-515001, Andhra Pradesh, India

LHS : LEFT HAND SIDE

RHS : RIGHT HAND SIDE

Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU

Executive Engineer (R&B),
NH Division, Anantapuramu

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

NH-205(Old-42)

CUSTOMER	AGP CITY GAS PVT LTD. 1st Floor, BFL Complex, Door No. 8-28/2 District Court Road, Mahanthpur, Bhubaneswar, Odisha, India
PROJECT	Route Survey & Allied Works for City Gas Distribution (CGD) Projects at Geographical Areas (GA) of Anapamur and Kolsapa Districts
SURVEY CONSULTANT	ANANTH TECHNOLOGIES LIMITED. (ATL) #39 Ananth Info Park Phase - II Hi-Tech City, Madhavaram, Chennai - 600 030, India Email: info@ananthtech.com
TITLE	SECTION-Faigaladu HWY. In to Phangal Road JN FROM CH 76+000 KM TO CH: 76+900 KM
SCALE	STRETCH DETAILS (Along ROW of NH-205, Old-42)
DATE	11/10/2016
REV.	DRAWING NO
	AGP/CGD-AP/P
	0

STRETCH DETAILS (Along ROW of NH-205(Old-42))							
Rapthadu HWY Jn to Phangal Road Jn							
S.No.	State/Union Territory	Stretch	Along/Across	Along Rapthadu HWY Jn to Phangal Jn	Length (KM)	NH Chainage	DISTRICT
1	AP	NH-205 (Old-42)	Along		0.980	76+000 to 76+980	Ananthapur

[Signature]
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

**Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.**

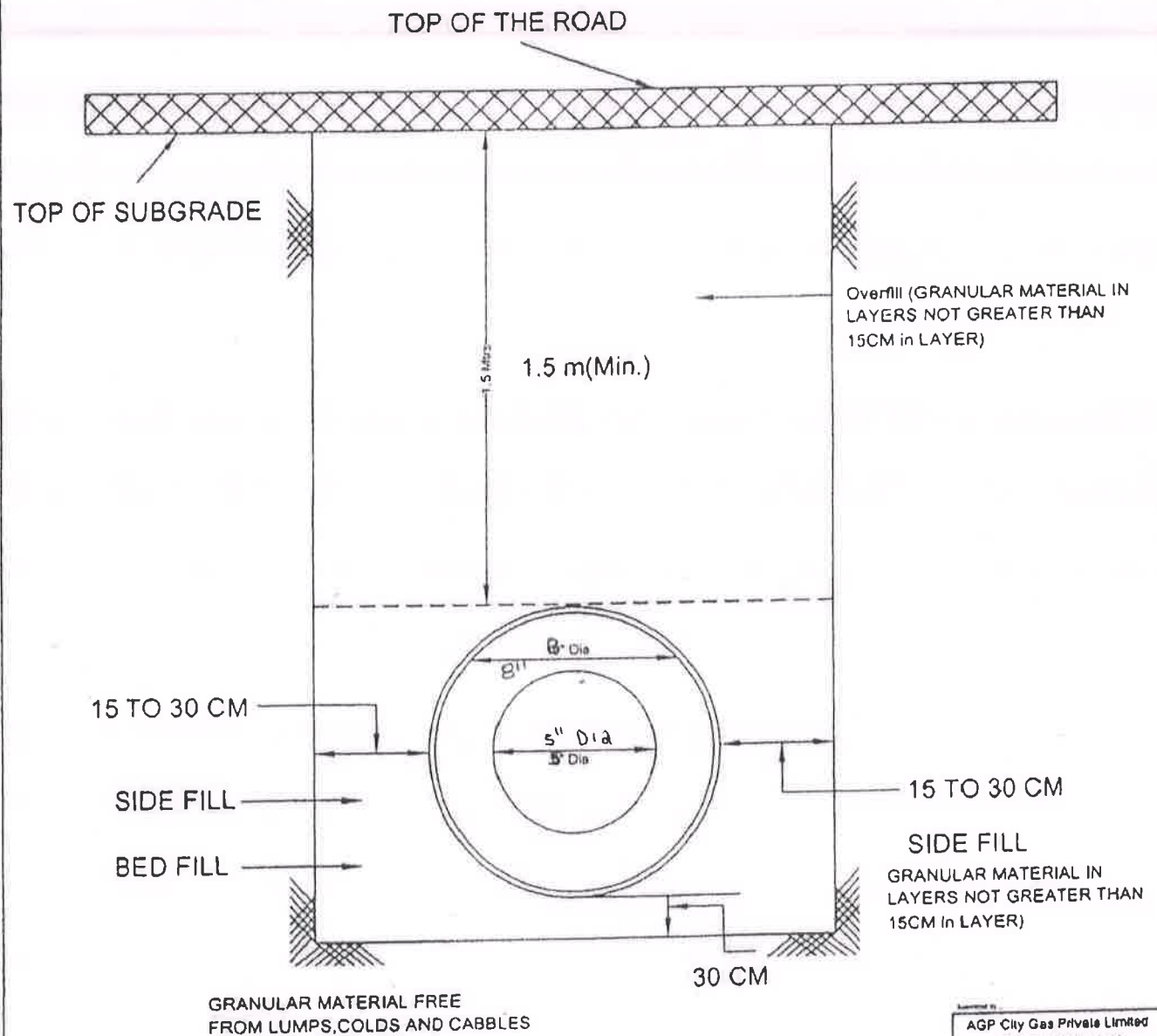
**Executive Engineer (R&B,
NH Division, Anantapuramu**

VENKAT
G.A. HEAD
G.A. KADAPA (YSR)
ANANTAPUR & KADAPA
AG & P

Enclosure to Ministry of Road Transport & Highways Letter
No.RW/NH-33044/29/2015S&R Dt. 22/11/2016

CROSS SECTION DRAWING OF CROSSING PIT
BY HORIZONTAL DIRECTIONAL DRILLING (HDD) METHOD

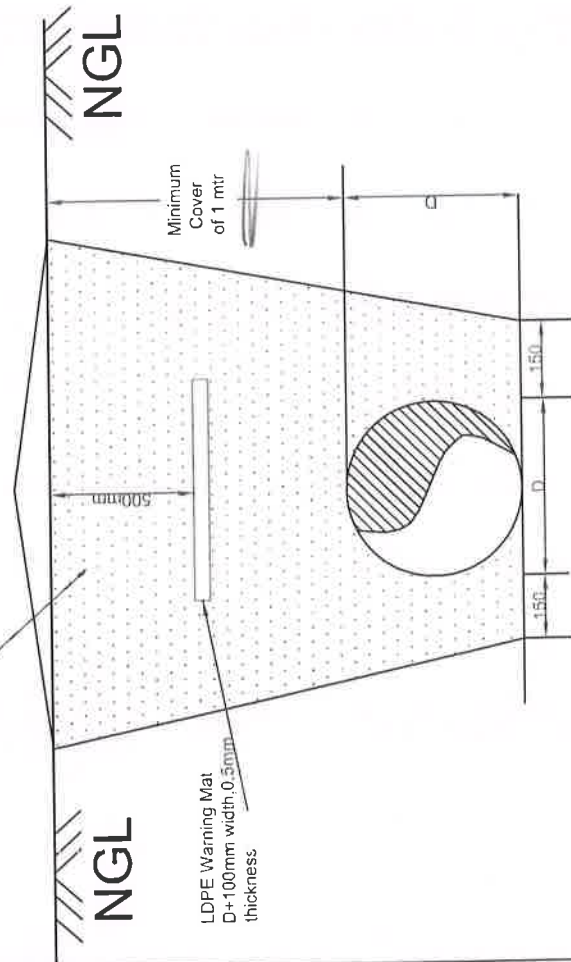
NH- 205 (Old 42) at 76.980 km



AGP City Gas Private Limited
First Floor, Building No. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2

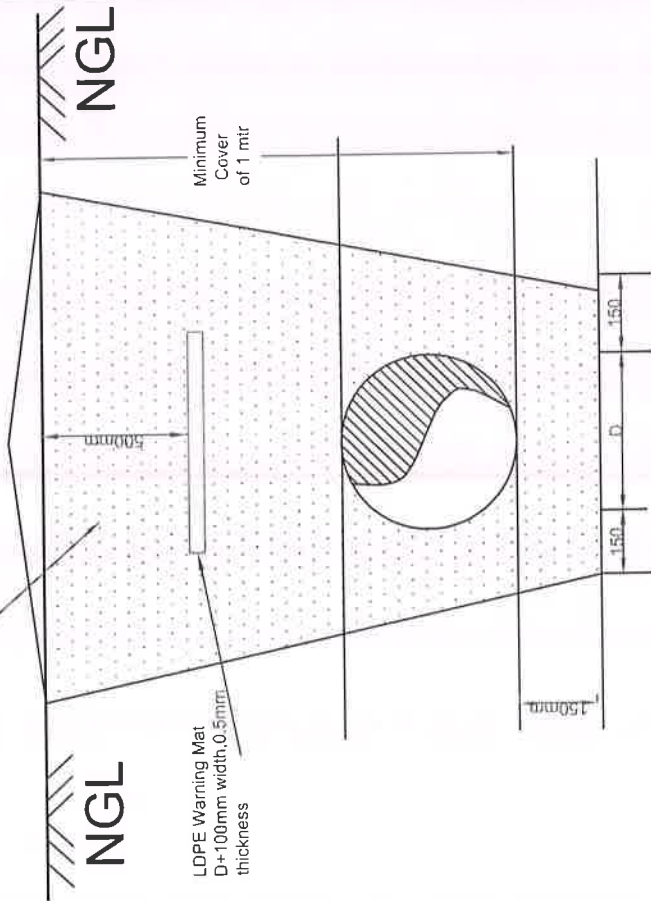
Annexure - 2

Backfill with Excavated soil



TYPICAL CROSS SECTION OF TRENCH FOR LAYING OF NATURAL GAS PIPELINES IN SOFT SOIL

Backfill with Excavated soil



TYPICAL CROSS SECTION OF TRENCH FOR LAYING OF NATURAL GAS PIPELINES IN ROCKY/HARD SOIL

AGP City Gas Private Limited

[Signature]
G.A. VENKATESH
G.A. HEAD
ANANTAPUR & KADAPA (YSR)
ANANTAPUR AG & P

[Signature]
14/1/22

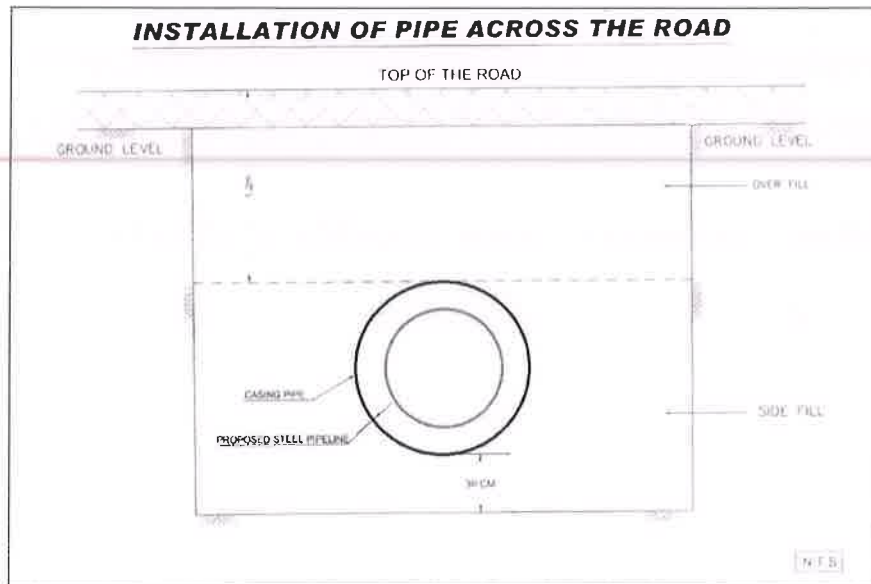
Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.

[Signature]
19/1/2020
Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU

CROSSING METHODOLOGY – NHAI/NH/R&B ROADS

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

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 will be 150mm higher than the carrier pipe. The casing pipe shall be made of approved steel with epoxy coating (Internal and External) or approved reinforced concrete pipe. The thickness of casing pipe shall be decided so as to take all the external load during construction and

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.

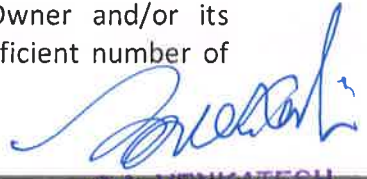
Following measurements shall be taken during the driving operation.

- 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 Owner and/or its representative is required. The insertion will be carried out with a sufficient number of suitable machines.



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

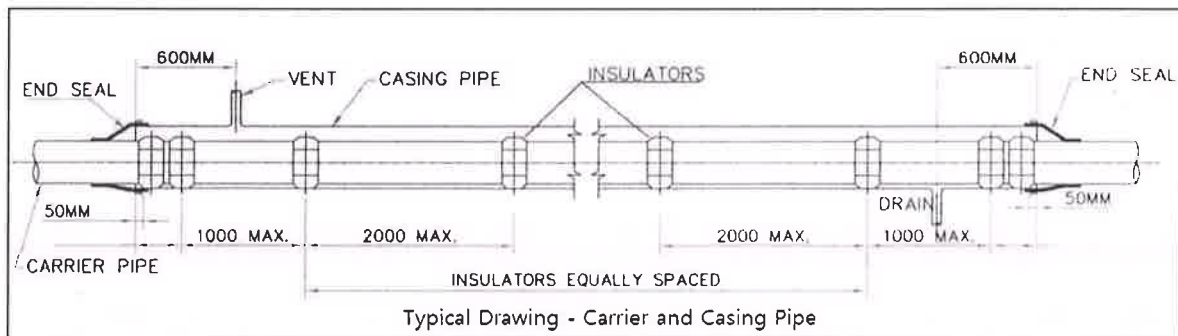
The pipeline will be kept completely in line with the casing. Damage to the coating will be excluded altogether. The progress of the pipeline in the casing will be gradual and under control. The front end of the pipe will be equipped with a slider-shoe and drawn by a cable through the casing.

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

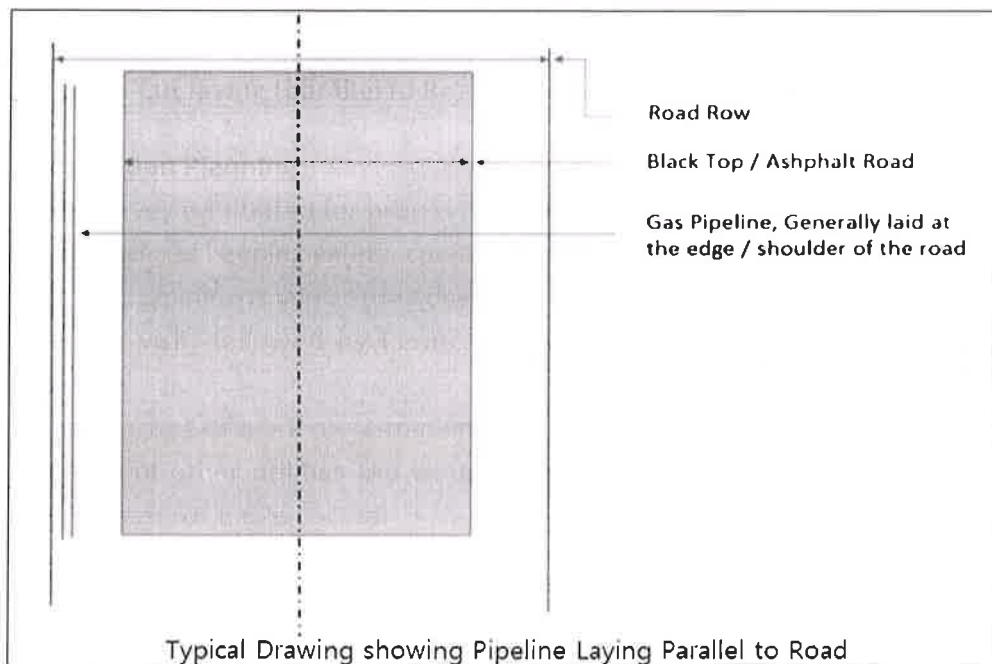
After installation of casing and carrier pipe the road shall be restored to the satisfaction of concern authorities. The installation of vent and drain shall be installed at both the ends of crossing. Warning sign boards indicating the warning about flowing of high pressure natural gas and telephone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


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

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

1. Pre-Excavation Planning

- Route survey is initiated for proposed area of laying
- Route finalized keeping safety, construction and operation ease
- 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

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

- Soft Soil bedding is provided for 100/150mm for normal and rocky strata respectively
- Pipeline is lowered at the center of trench
- 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
- 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.
3. 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.
7. 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 has 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.
19. The site must be checked daily for tidiness and safety before work begin.


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.



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



Assistant Executive Engineer
(R & B) NH SECTION
ANANTHAPURAMU.



Deputy Executive Engineer
(R & B) NH SUB-DIVISION
ANANTHAPURAMU.