



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

कार्यालय क्षेत्रीय अधिकारी, आंध्र प्रदेश क्षेत्र

Office of the Regional Officer, Andhra Pradesh Region

प्लॉट.क.२१, टीचर्स कॉलोनी, गुरुनानक नगर मार्ग, विजयवाड़ा-५२० ००८, आंध्र प्रदेश

Plot No.21, Teacher's Colony, Gurunanak Nagar Road, Vijayawada-520 008. A.P.

टेली / Tele : 0866-2483910
ई-मेल / E-mail : rovijayawada@nhai.org
nhairovja@gmail.com



Ref : NHAI/RO-VJA/V-G/2017-18/228.

Date : 27-11-2018

To

The Sr. Technical Director,
NIC, Transport Bhawan,
New Delhi- 110001.

Sub : Laying HPCL's Vijayawada - Laying of HPCL Vijayawada - Dharmapuri
Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe
across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near
Saidapuram village in Krishna District - Public Comments - Reg.

Sir,

Please find enclosed herewith the proposal of M/s. HPCL for laying of HPCL
Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia
casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near
Saidapuram village in Krishna District in the State of Andhra Pradesh.

As per MORTH guidelines vide letter No. RW/NH-33044/29/2015/S&R® dated 22nd
November 2016, the application along with the recommendation of PD, PIU - Vijayawada
are enclosed herewith with a request to host the same in the Ministry's website for 30
days seeking claims and objections (on grounds of public inconvenience, safety and
general public interest), for taking further necessary action.

Yours faithfully,

(Anil Dixit)

Regional Officer
RO - Vijayawada

Encl: As above

Copy to PD, PIU - Vijayawada - for information



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

कार्यालय क्षेत्रीय अधिकारी, आंध्र प्रदेश क्षेत्र

Office of the Regional Officer, Andhra Pradesh Region

प्लॉट.क.२१, टीचर्स कॉलोनी, गुरुनानक नगर मार्ग, विजयवाड़ा-५२० ००८. आंध्र प्रदेश

Plot No.21, Teacher's Colony, Gurunanak Nagar Road, Vijayawada-520 008. A.P.

टेली / Tele : 0866-2483910

ई-मेल / E-mail : rovijayawada@nhai.org
nhairovja@gmail.com



Ref : NHAI/RO-VJA/V-G/2017-18/2728.

Date : 27-11-2018

INVITATION OF PUBLIC COMMENTS


Sub : Laying HPCL's Vijayawada - Laying of HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District - Public Comments - Reg.

The Project Director, PIU - Vijayawada submitted a proposal of M/s. HPCL for laying of HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District in the State of Andhra Pradesh.

As per MORTH guidelines vide letter No. RW/NH-33044/29/2015/S&R® dated 22nd November 2016, the Highway Administration will put out the application in the Ministry's website for 30 days seeking claims and objections (on grounds of public inconvenience, safety and general public interest).

In view of the above, the comments of public, if any, on the above mentioned proposal is invited on below mentioned address.

**Regional Officer - Vijayawada,
National Highways Authority of India,
Plot No.21, Teachers' Colony, Gurunanak Nagar Road,
Vijayawada, Andhra Pradesh. Pin: 520 008.
Email: rovijayawada@nhai.org**


(Anil Dixit)
Regional Officer
RO - Vijayawada



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय)
National Highways Authority of India
(Ministry of Road Transport & Highways)

दूरभाष / Phone : 0866 - 2543496
ई-मेल / E-mail : vij@nhai.org
nhaipiuvi@gmail.com



भारतमाला
प्रगति के पथ पर अग्रसर
BHARATMALA
ROAD TO PROSPERITY

परियोजना कार्यान्वयन ईकाई
Project Implementation Unit

प्लॉट नं: 74, वनमाली भवन, एन.ए.सि. कल्याणा वेदिका के बगल में,
कमर्शियल टैक्सेज कॉलोनी, गुरुनानक नगर रोड, विजयवाड़ा-520 008.
Plot No. 74, Vanamali Building, Beside N.A.C. Kalyana Vedika,
Commercial Taxes Colony, Gurunanak Nagar Road, Vijayawada-520 008.

Ref : 11070/PIU/V/NHAI/2018/ 1605

To
The Regional Officer
National Highways Authority of India,
Plot No.21, Teachers' Colony,
Gurunanak Nagar Road,
Vijayawada -520 008.



Sir,

Sub : NHAI, PIU, Vijayawada - Laying HPCL's Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District - Permission - Requested - Reg.

- Ref: 1) PIU Lr.no. 11070/PIU/V/NHAI/2018/914, Dt. 30.07.2018.
2) RO-Vijayawada Lr.no. NHAI/RO-VJA/N-V/2017-18/1852, Dt. 07.08.2018.
3) GM - Pipeline Projects M/s. HPCL Lr.no. HPCL/VDPL/NHAI/RP, Dt. 20.08.2018.
4) TL, M/s. Aarvee Associates Architects Engineers & Consultants Pvt. Ltd., Lr.no. Aarvee/NHAI/NH-65/18-19/0010, Dt. 17.10.2018.

This is with reference to this office letter 1st cited duly attending to the observations of Regional Office, Vijayawada on the subject proposal and recommended to accord permission for laying HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District.

In turn, Regional Office, Vijayawada vide letter dated 07.08.2018 (ref. 2nd cited) communicated the following observations and requested to resubmit the proposal, after complying the observations.

- (i) Width of pipeline taken as 2 mt, but actual is 24"
- (ii) Revised Checklist is not signed by Power of Attorney Holder

Accordingly, the agency M/s. HPCL was requested to submit the details as desired for further processing of the proposal. In reply, M/s. HPCL vide letter dated 20.08.2018 (ref. 3rd cited) submitted replies to the observations, as detailed below.

1. The width of pipeline is 24", however the trench required for carrying out crossing through Horizontal Boring would be of 2 mt. Hence, the width required for crossing in the pipeline is submitted as 2 mt.

Contd..2

2. Revised Checklist signed by Power of Attorney Holder is enclosed.

The IE, M/s. Aarvee Associates Architects Engineers & Consultants Pvt. Ltd., was requested to examine and to submit their comments on the proposal of HPCL.

In reply, the IE vide letter dated 17.10.2018 while submitting the following recommended the proposal of HPCL for approval.

- (i) As per Clause 3.4 of MoRTH Circular dated 22.11.2016, the casing / conduit pipe may be installed under the road embankment either by boring or digging a trench. The Agency is proposing Horizontal Boring method for laying of conduit within the RoW and open trenching beyond the RoW.
- (ii) Keeping in view of future expansion of the highway, it is suggested that the agency shall strictly follow the guidelines given under Cl.3.5 of the Circular for a length of 30 mts beyond RoW while opting the trench for laying of conduit.
- (iii) The works shall be executed without any damages to the works/property of the Concessionaire.

The details of license fee and Performance Security to be payable by the agency as per MoRTH Circular dated 22.11.2016 has been already submitted vide PIU letter dated 30.07.2018, as detailed below.

- 1) Performance Bank Guarantee per route meter with a validity of 1year initially as per MORTH circular Cl:6 is shown below-

- (i) Width of line = 2m
- (ii) Length of road crossing = 47m
- (iii) Amount to be paid per meter (>1000mm) = 500/- per meter

Hence amount to be furnished as security deposit = 47m x 500/- = Rs.23,500/-.

- 2) Charges for granting license for use of highway land as per MORTH circular Cl:5 shown below-

- License for public utilities shall be 33% of the fee prescribed for industrial utilities.
- Initial permission would be valid for a maximum of 5 years at a time.
- **License Fees (Rs/Sqm/month) for Industrial utilities = (Utilized NH land area X prevailing Circle Rate of land per unit area) / (10x12) where,**
Utilized NH land area = Outer diameter/width of the concerned utility line X length.

i) Utilized land area = 2m x 47m = 94 Sqm.

ii) Prevailing circle rate of land per Sqm = Rs.914/-
(Land cost per Acre=37, 00,000/- as on 01/08/2017 at nearby survey numbers at road crossing location. Details attached vide Annexure-I to this letter)

Page:3:

License Fees (Rs/Sqm/month) = $94 \text{ Sqm} \times \text{Rs.}914 / (10 \times 12) = \text{Rs.} 716/-$


License fee for public utilities shall be 33% of the fee prescribed for industrial utilities, i.e $\text{Rs.}716/- \times 0.33 = \text{Rs.}236/-$

License charges to be paid by applicant for 5 Years (5x 12=60 months) = $236/- \times 60 \text{ months} = \text{Rs.} 14,160/-$

In view of the above, it is recommended to accord permission for laying HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District.


Encl : As above.

Yours faithfully,


(M. Vidyasagar) 9/11/14
Project Director
PIU-Vijayawada

CERTIFICATE

1. It is certified that all Standard Conditions specified in the proposal from M/s.HPCL for permission for laying of HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District is in conformity of Ministry Circular No. RW/NH-33044/29/2015/S&R(R) dt 22-11-2016.
2. It is further certified that there will be no hindrance to existing highway, since the Petroleum pipeline is proposed for laying is at the extreme edge at ROW.
3. It is to certify that upon receipt of approval for the above proposal, the same will be entered in the Register of Records of the Permissions in the prescribed proforma.


(M.Vidyasagar)
Project Director
NHAI, PIU-Vijayawada

Dated: 17.10.2018

To
The Project Director
PIU-NHAI, Vijayawada.

Sub: Widening & strengthening of Nandigama to Ibrahimpatnam to Vijayawada (NH 9) in the State of Andhra Pradesh India and its Operation and Maintenance on Build, Operate and Transfer (B.O.T) basis - Permission for laying of 24" Pipe line across Nh-65 @ Km 235/200 by M/S HPCL -Reg: Ref: PIU letter :11070/PIU/V/NHAI/2018/1409 dated 11.10.2008

Dear Sir,

In reference to your letter cited above, we have examined the submission of M/S HPCL for laying the 24" pipe line across the National Highway @ Km 235/200 with the guidelines of MORTH Circular -RW/Nh-33044/29/2015/S&R(R) Dated 22nd November 2016.

Our review comments are as under,

1. As per clause 3.4 of the circular, the casing /conduit pipe may be installed under the road embankment either by boring or digging a trench. The Agency is proposing Horizontal boring method for laying of conduit with in the ROW and open trenching beyond the ROW.
2. Keeping in view of future expansion of the highway, it is suggested that the agency shall strictly follow the guidelines given under clause 3.5 of the circular at for a length of 30 mts beyond ROW while opting the trench for laying of conduit.
3. The works shall be executed without any damages to the works/ property of the concessionaire.

It may please be noted that as per circular the initial permission would be valid for a maximum of 5 years.

The agency is confirming in the check list that the necessary charges & Performance BG details for granting of license is enclosed.

As the Agency has submitted all the details required, the permission of laying the 24" conduit across the National Highway @ Km 235/200 may be recommended for the approvals of the Competent Authority.

This is for your information please.

Assuring our best services at all times.

Thanking you.

Yours sincerely,

W. Prakasa Rao

Team Leader cum Highway Engineer

Aarvee Associates Architects Engineers & Consultants Pvt. Ltd.,

Copy to:

1. The Independent Engineer Aarvee Associates Architects Engineers & Consultants Pvt. Ltd, Hyderabad, for information please.
2. The Chief of Operations & Maintenance, M/S STPL Budhanam to take necessary action immediately after festival.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

परियोजना कार्यान्वयन ईकाई

Project Implementation Unit

डि.नं: 54-20/3-9, प्लॉट नं: 1, अंबेडकर नगर कॉलोनी (पहला क्रॉस), गुरुनानक नगर कॉलोनी, विजयवाड़ा-520 008, आंध्रप्र.
D. No. 54-20/3-9, Plot No. 1, Ambedkar Nagar Colony (1st Cross), Gurunanak Nagar Colony, VIJAYAWADA-520 008. A.P.

दूरभाष / Phone : 0866 - 2543496

ई-मेल / E-mail : vij@nhai.org

nhaipiuvi@gmail.com



भारतमाला
प्रगति के पथ पर चलें
SHARATMALA
ROAD TO PROSPERITY

Ref : 11070/PIU/V/NHAI/2018/914

Date : 30-07-2018

To
The Regional Officer,
National Highways Authority of India,
21, Teachers' Colony, Gurunanak Nagar Road,
Vijayawada -520 008.

Sir,

Sub : NHAI, PIU, Vijayawada - Laying HPCL's Vijayawada - Laying of HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District - Permission - Requested - Reg.

- Ref:** 1. PD, NHAI, PIU - Vijayawada letter No. 11070/PIU/V/NHAI/2017/1534 dated 31.08.2017.
2. RO, NHAI - Vijayawada letter No. NHAI/RO-VJA/V-M/2017-18/4493 dated 06.10.2017.
3. PD, NHAI, PIU - Vijayawada letter No. 11070/PIU/V/NHAI/2017/2002 dated 18.10.2017.
4. M/s. HPCL letter No. HPCL/BNG/VDPL/AP/NHAI/2017/ dated 25.10.2017.
5. TL, M/s. CEG letter No. CEG/TL/N-V/NHAI/2017/1632 dated 26.12.2017.
6. This office Lr. No.11070/PIU/V/NHAI/2018/2772 dated 05.02.2018.
7. RO, NHAI, Vijayawada Lr. No.NHAI/RO-VJA/VIJ/2017-18/451 dated 23.02.2018.
8. Chief Manager, M/s. HPCL Lr. No.Nil dated 11.05.2018.
9. Acting Team Leader, M/s. CEG Lr. No.CEG/TL/N-V/NHAI/2018/1665 dated 28.07.2018.

1. It is to submit that this office vide letter 6th cited has submitted a proposal for laying HPCL's Vijayawada - Laying of HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District with a request to accord approval.

Contd...2

012

2. In turn, the Competent Authority of NHAI, Regional Office, Vijayawada vide reference 7th cited have raised certain observations on the proposal submitted by this office.

3. The following point-wise information for the observations raised vide reference 7th cited are herewith submitted.

3.1 The certificate i.e., the proposal is in conformity of Ministry Circular No.RW/NH-33044/29/2015/S&R(R) dated 22.11.2016 is enclosed herewith.

3.2 M/s. HPCL vide reference 8th cited has submitted the revised checklist including point 5.9 to 5.11, the same is enclosed herewith duly signed by the Project Director.

3.3 A statement showing the list of previous approvals is enclosed herewith.

3.4 M/s. HPCL vide their letter 8th cited has informed that the unified license details are not applicable in this case as HPCL proposal is for laying of petroleum product pipeline across NH-65 road at Km.235.2.

3.5 The Independent Engineer, M/s. CEG Ltd., vide letter 9th cited has calculated the performance bank guarantee and license fee as per MORTH Circular dated 22.11.2016 as follows.

1) M/s. HPCL has to pay the performance bank guarantee per route meter with a validity of 1 year initially as per MORTH circular CI:6 is shown below-

(i) Width of line = 2m

(ii) Length of road crossing = 47m

(iii) Amount to be paid per meter(>1000mm) = 500/- per meter

Hence amount to be furnished as security deposit = 47m x 500/- = Rs.23,500/-.

2) M/s. HPCL has to pay the charges for granting license for use of highway land as per MORTH circular CI:5 shown below-

-License for public utilities shall be 33% of the fee prescribed for industrial utilities.

- Initial permission would be valid for a maximum of 5 years at a time.

-License Fees (Rs/Sqm/month) for Industrial utilities = (Utilized NH land area X prevailing Circle Rate of land per unit area) / (10x12) where,

Contd...3

-:: 3 ::-

Utilized NH land area = Outer diameter/width of the concerned utility line X length.

i) Utilized land area = 2m x 47m = 94 Sqm.

ii) Prevailing circle rate of land per Sqm = Rs.914/-
(Land cost per Acre=37, 00,000/- as on 01/08/2017 at nearby survey numbers at road crossing location. Details attached vide Annexure-I to this letter)

License Fees (Rs/Sqm/month) = 94 Sqm x Rs.914 / (10x12) = Rs. 716/-

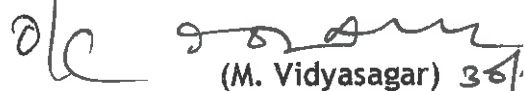
License fee for public utilities shall be 33% of the fee prescribed for industrial utilities, i.e Rs.716/- x 0.33 = Rs.236/-

License charges to be paid by applicant for 5 Years (5x 12=60 months) = 236/- X 60months = Rs. 14,160/-

4. Copies of letters 8th & 9th cited are enclosed herewith. In view of the above, it is recommended to accord permission for laying HPCL Vijayawada - Dharmapuri Petroleum Product pipeline of 16" dia along with OFC in 24" dia casing pipe across National Highway - 65 (Vijayawada to Hyderabad) at Km. 235.2, Near Saidapuram village in Krishna District.

Encl : As above.

Yours faithfully,


(M. Vidyasagar) 36/

Project Director
NHAI, PIU-Vijayawada



NATIONAL HIGHWAYS AUTHORITY OF INDIA
PIU-VIJAYAWADA

Statement showing the list of previous approvals

| Sr. No. | Name of the applicant | Type of Permission | From | | To | | Length (Mts) | Date of Application | Date of Recommendation | Date of Approval |
|---------|----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------|---------------------|------------------------|------------------|
| | | | Km. | Km. | Km. | Km. | | | | |
| 1 | M/s. Idea Cellular Ltd. | OFC | 225.000 | 226.280 | 226.280 | 226.280 | 1315 | 17.02.2016 | 10.05.2016 | 13.07.2016 |
| 2 | M/s. Idea Cellular Ltd. | OFC | 267.400 | 269.200 | 269.200 | 269.200 | 1800 | 07.12.2016 | 15.12.2016 | 30.12.2016 |
| 3 | M/s. Power Grid Corporation Ltd. | Transmission Line | 229.000 | -- | -- | -- | -- | 18.03.2017 | 17.04.2017 | 01.05.2017. |
| 4 | M/s. Vodafone Services Ltd. | OFC | 262.580 262.560 | 262.635 262.912 | 262.635 262.912 | 262.635 262.912 | 55 407 | 05.12.2017 | 09.04.2018 | 18.06.2018 |

[Signature]
Project Director
NHAI, PIU, VIJAYAWADA. 30/1/18



REGISTRATION & STAMPS DEPARTMENT

GOVERNMENT OF ANDHRA PRADESH



[About Us](#) [Organization](#) [ACTS & Rules](#) [FAQs](#) [Values & Rates](#) [RTI Act](#) [Document Templates](#) [Publications](#)

UNIT RATES - VILLAGE WISE

| District Name | KRISHNA | Mandal Name | KANCHIKA CHERLA | |
|-------------------|----------------|--------------------------------|------------------------|---------------------------------|
| City/Town/Village | KANCHIKACHERLA | Survey No. | Select ▼ | To view Survey No. Wise Details |
| S.No. | Habitation | Nature Of Use | Land Rate Rs. per Acre | Effective Date (dd/mm/yyyy) |
| 1. | KANCHIKACHERLA | Dry land | 1,250,000 | 01/08/2017 |
| 2. | KANCHIKACHERLA | House Sites | 12,100,000 | 01/08/2017 |
| 3. | KANCHIKACHERLA | Agricultural Land fit for H.S. | 3,050,000 | 01/08/2017 |
| 4. | KANCHIKACHERLA | Land adjoining NH/SH/ZPP/MPP | 3,700,000 | 01/08/2017 |

[Back](#)

Note :

1. This is provisional information as per records maintained by registration department for the purpose of helping the registering public to estimate the stamp duty only, subject to change due to revision of market value once in a year OR adhoc due to anomalies.

2. For further details contact Sub Registrar office

KANCHIKACHERLA,
7-27, Pedda Bazar
MAINROAD, Kanchikacherla
Kanchikacherla
Phone : 273444

[Home](#) [Privacy Policy](#) [Sitemap](#) [Contact us](#) [Feedback](#)

This Site is best viewed in 1024*768 screen resolution

Disclaimer: Content owned, maintained and updated by Registration & Stamps Department, Government of Andhra Pradesh.
For any queries, suggestions or complaints contact Toll Free No. 1800-425-9908

Last modified
12-Feb-2015

Designed & Developed by [www.mca.gov.in](#)

CHECK LIST

Guidelines for Project Director for processing the proposal for laying 16" dia Petroleum Product Pipeline along with
Check list for getting approval for laying HPCL's Vijayawada-Dharmapuri Petroleum Product Pipeline along with

| Sl No:- | Item | Information/Status | Remarks |
|---------|---|--|---------|
| 1 | General Information | Laying pipeline across to NH-65 (Vijayawada - Hyderabad) | |
| 1.1 | Name and Address of the Applicant/Agency | Hindustan Petroleum Corporation Limited, No-332, Darus Salam Building, II floor, Queens road, Bangalore-560052, 080 22535400 | |
| 1.2 | National Highway Number | NH-65 | |
| 1.3 | State | ANDHRA PRADESH | |
| 1.4 | Location | Saidapuram | |
| 1.5 | chainage/K.m | Km 235.2 | |
| 1.6 | Length in Meters | 47.0 m | |
| 1.7 | Width of available ROW | | |
| | a)Left side from center line towards increasing chainage /km direction | As per drawing attached | |
| | b)Right side from center line towards increasing chainage /km direction | As per drawing attached | |
| 1.8 | Proposal to lay the utility | | |
| | a)Left side from center line towards increasing chainage /km direction | As per drawing attached | |
| | b)Right side from center line towards increasing chainage /km direction | As per drawing attached | |
| 1.9 | proposal to acquire the land | | |
| | a)Left side from center line | NA | |
| | b)Right side from center line | NA | |
| 1.10 | whether proposal is in the same side where land is not to be acquired | Only crossing at (Km 235.2) | |
| | if not then where to lay the cable | | |


Project Director,
NHAI PIU, VIJAYAWADA 6/11/18


R. Ramesh,
General Manager-Pipeline Projects
Constituted Attorney

| | | | |
|------|---|-----------------------------|--|
| 1.11 | Details of already laid services, if any along the proposed route | NA | |
| 1.12 | Number of Existing lanes(2,4,6,8 lanes) | 4 | |
| 1.13 | proposed number of lanes (2lane with paved shoulders/4/6/8 lanes) | 4 | |
| 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 the utility is after the service road or between the service road and main carriageway | Crossing | |
| 1.17 | Whether carrying of sewage /gas pipeline has been proposed on highway/bridges if YES then mention the methodology proposed for the same | Boring | |
| 1.18 | Whether carrying of sewage /Gas pipeline has been proposed on the parapet/any part of the bridges. if YES then mention the methodology proposed for the same | NO | |
| 1.19 | If crossing of the road involved If YES, it shall be either encased in pipes or through structure or conduits specially built for that purpose at the expense of the agency owning the line | Through Boring | |
| | a)whether the existing drainage structures are allowed to carry the utility pipeline | NO | |
| | b)is it on a line normal to the NH | NO | |
| | 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 | N.A | |
| | d)The casing pipe 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 carrier pipe/cable | 24" dia Carbon steel casing | |
| | Mention type of casing | CARBON STEEL PIPELINE | |
| | e)Ends of the casing /Conduit pipe shall be sealed from the outside so that it does not act as a drainage path | YES | |


 Project Director,
 NHAI, VIJAYAWADA 4/11/16


 R. Ramesh,
 General Manager-Pipeline Projects
 Constituted Attorney

| | | | |
|-----|--|------------------------|--|
| | f)The casing/conduit pipe should as minimum extend from drain to drain in cuts and toe of slope in fills | YES | |
| | g) The top of the casing /conduit pipe should be atleast 1.2 meter below the surface of the road subject to being at least 0.3 meter below the drain inverts | YES | |
| | mention the proposed details | | |
| | h)Mention the methodology proposed for crossing of road for the proposed sewage /Gas pipe line .Crossing shall be by boring method HDD.specially where the existing road pavement is of cement concrete or dense bituminous concrete type. | Boring | |
| | 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 water way along it | YES | |
| 2 | Document /Drawing to be enclosed with the proposal | Enclosed | |
| 2.1 | crossection showing the size of the trench for open trenching method | Enclosed | |
| | is it normal size of 1.2m deep X 0.61meter wide | 3.0m deep X 0.61m wide | |
| | i)should not be greater than 60cms wider than the outer diameter of the pipe | YES | |
| | ii)located as close to the extreme edge of the right of way as possible but not less than 15m from the centerline of the nearest carriageway | YES | |
| | iii)shallnot be permitted to run along the Natinal Highways when the road formation is situated in double cutting.nor shall these be laid over the existing culverts and bridges | YES | |
| | iv)These should be so laid that their top is at least 0.6m below the ground levelso as not to obstruct drainage of the road land | Yes | |
| 2.2 | Cross section showing the size of the pit and location of cable for HDD method | Enclosed for Boring | |
| 2.3 | Strip plan/route plan showing the utility/Gas Pipeline chainage Width of ROW distance of proposed pipeline from the edge of ROW. Important mile stone Intersections ,cross drainage works etc... | Enclosed | |


 Project Director, 15/11/18
 NHAI, PIU, VIJAYAWADA


 R. Ramesh,
 General Manager-Pipeline Projects
 Constituted Attorney

| | | | |
|-------|---|----------|--|
| 2.4 | Methodology for laying of the utility pipeline | Enclosed | |
| 2.4.1 | open trenching method.(May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type | | |
| | IF yes what is the methodology of refilling the trench | | |
| | a)The trench width should be at least 30cms. But not more than 60cms wider than the outer diameter of the pipe | Enclosed | |
| | b)for filling of the trench bedding shall be to a depth of not less than 30cms.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 be excavated and replaced by selected material. | YES | |
| | 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 | YES | |
| | d) The side fill shall consist of granular material laid in 15cms layers each consolidated by mechanical tamping and controlled addition of moisture to 95% of the proctor density .Overfill shall be compacted to the same density as the material that has been removed.consolidation by saturation or ponding willnot be permitted | YES | |
| | 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 | YES | |
| | f)The excavation shall be protected by flagman, Signs and barricades and redlights during night hours | YES | |
| | g)if required a diversion shall be constructed at the expense of agency owing the utility line | YES | |
| 2.4.2 | Horizontal Directional Drilling method(HDD method) | NO | |
| 2.4.3 | methodology for laying of the pipeline through CD works and method of laying | YES | |


Project Director,
NHAI, PIU, VIJAYAWADA


R. Ramesh,
General Manager-Pipeline Projects
Constituted Attorney

| | | | |
|-----|---|----------|--|
| | in cases where the carrying of gas pipeline on the bridge becomes inescapable | | |
| 3 | draft license agreement is signed by two witnesses | Enclosed | |
| 3.1 | the licensee fee estimate as per ministry guide lines issued vide circular no:RW/NH/33044/29/2015/S&RDATED 22-11-2016 | Enclosed | |
| 4 | whether performance bank guarantee as per ministry circular No:RW/NH-3044/29/2015/S&R(R)DATED 22-11-2016 is obtained | Yes | |
| 4.1 | confirmation of BG has been obtained or not as per MORTH /NHAI guide lines | Yes | |
| 5 | Affidavit /undertaking from the applicant from 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 NHAI or to the concerned agency | Enclosed | |
| 5.2 | Undertaking for renewal of BG as when asked by MORTH/NHAI | Enclosed | |
| 5.3 | Undertaking for confirming all standard condition of Ministry /NHAI guide lines | Enclosed | |
| 5.4 | Undertaking for indemnity against all damages and claims | Enclosed | |
| 5.5 | Undertaking for management of traffic moment during laying of utility line without hampering the traffic | Enclosed | |
| 5.6 | Undertaking that if any claim is raised by the concessionaire /contractor then the same has to be paid by applicant | Enclosed | |
| 5.7 | Undertaking that prior approval of the NHAI shall be obtained before undertaking any work/installation /shifting/repairs /alterations to the utility located in the national highways ROW | Enclosed | |
| 5.8 | Undertaking that expenditure if any incurred by NHAI by repairing any damage caused to the NH by laying maintenance or shifting of the utility line will be borne by the applicant agency owning the line | Enclosed | |


Project Director,
NHAI, PIU, VIJAYAWADA 25/11/18


R. Ramesh,
General Manager-Pipeline Projects
Constituted Attorney

| | | | |
|------|---|-----------------------------|--|
| 5.9 | Undertaking that 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 | |
| 5.10 | undertaking that the applicant has obtained various safety clearances from the representative 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 clearance as applicable, before applying to Highway administration | Enclosed | |
| 5.11 | if the MORTH/NHAI considers if 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 MORTH/NHAI at the cost of the agency owning the utility line within a reasonable time (not exceeding 60 days) of the intimation given | Enclosed | |
| 5.12 | certificate from the applicant in the following format | | |
| | i) laying of GAS pipeline will not have any deleterious effects on any of the bridge components and roadway safety for traffic | Enclosed | |
| | ii) "we do undertake that I /we will relocate service road /approach road /utilities at my/our own cost notwithstanding the permission granted within such time as will be stipulated by NHAI for future six laneing/any other development" | Enclosed | |
| 6 | who will sign the agreement on behalf of GAS pipeline agency | GM, Pipeline Projects, HPCL | |
| | power of attorney to sign the agreement is available or not | YES | |
| 7 | The project director will submit the following certificates | | |
| 7.1 | certificate that the proposal is conforming to all standard conditions issued vide ministers circular no:RW/NH/33044/29/2015/S&R®DATED 22-11-2016. | Enclosed | |
| 7.2 | certificate from PD in the following format | | |
| | i) "it is certified that any other location of the GAS pipeline would be extremely difficult and unreasonable costly and the installation of GAS pipeline within ROW will not adversely affect the design, stability and traffic safety of the highway nor the likely future improvement such as widening of the carriage way, easing of curve" | Enclosed | |


Project Director,
NHAI, PIU, VIJAYAWADA 13/11/18


R. Ramesh,
General Manager-Pipeline Projects
Constituted Attorney

| | | | |
|----|--|----------|--|
| | ii)for six laning | | |
| | 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 he said location ". | Enclosed | |
| | b)In cae feasibility report is not available "I do ceertify that sufficient ROW is available at sight for accommodating proposed six laning" | | |
| 8 | If NH section proposed to be taken up by NHAi on BOI basis a clause is to be inserted in the agreement.The permitted Highway on which licensee has been granted the right to lay Gas pipeline /Duct has also been granted as a right of way of to the cocessionaire under the concession agreement for upgrading of(-----Section from KM ----- to KM ----- of NHno:----- on build. (operate and transfer basis)and therefore the licensee shall honour the same | Enclosed | |
| 9 | who will supervise the work of laying of GAS pipeline. | HPCL | |
| | a)on behalf of the applicant | | |
| | b)on behalf of MORTH /NHAi | | |
| 10 | Who will ensure that the defects in road portion after laying of gas pipeline are corrected and if not corrected then what action will be taken | HPCL | |
| | a)on behalf of the applicant | | |
| | b)on behalf of NHAi | | |
| 11 | Who will pay the claims for damages done /disruption in working of concesionaire if asked by the concessionaire on behalf of Applicant | HPCL | |
| 12 | A certificate from PD that he will enter the propoded permission in the registerof records of the permissions in the prescribed proforma(copy enclosed) | | |
| 13 | if any previous approval is accorded for laying of underground gas pipeline then photocpy of register of records/permissions accorded(as maintained by PD) be enclosed. | Enclosed | |

Name /Designation/Signature of the authorized representative of the aplicant

R.Ramesh,
General Manager-Pipeline Projects
Constituted Attorney

Name /Designation/Signature of the concerned field authority of

Project Director,
NHAI,PIU,VIJAYAWADA

Details of Crossing NH-65
Vijayawada – Dharmapuri Petroleum Product Pipeline

| Sl No. | Description | Pipeline Chainage (Km) | NH Chainage | Pipeline Location | Village | Mandal | District | Remarks |
|--------|---|------------------------|-------------|-------------------|------------|----------------|----------|-------------------|
| 1 | National Highway-65(Vijayawada to Dharmapuri) | 32487.52 | Km 235.2 | IP73/1-IP73/2 | Saidapuram | Kanchikacherla | Krishna | Crossing th NH-65 |

Very truly yours,

(R. Ramesh)
DGM, HPCL

आर. रमेश R. RAMESH
उप महा प्रबंधक-परियोजना
Deputy. General Manager-Projects
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
मंगलूर-हासन-मैसूर-सोलर एलपीजी पाइपलाइन परियोजना
Mangalore-Hassan-Mysore-Solar LPG Pipeline Project
सं. 332, दारुस सलाम बिल्डिंग, दूसरा तल,
No. 332, Darus Salam Building, Second Floor,
क्वीन्स रोड, बेंगलूर - 560 052.
Queens Road, Bengaluru - 560 052.

Format for Maintaining Records of Right-of-way permission granted for laying of Petroleum Product Pipe Line (To be maintained separately for every NH)

1. Name of State : Andhra Pradesh
2. Name of NH Division : NH-1, Vijayawada, Andhra Pradesh
3. NH Number : NH-65

| Sl. No. | Location (Chainage in km) | Left or right side of NH (towards increasing chainage/km direction) | Section and reach | Kind of Service | Name of licensee 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 | 235.2km in between(235 to 236) | LHS | | Petroleum product pipeline | Hindustan Petroleum Corporation Limited, No-332, Darus Salam Building, II Floor, Queens Road, Bangalore-560052, 080 22535400. | | | | No | Crossing the NH-65 |

Project Director

श्री. श्री. R. RAMESH
 Deputy General Manager-Projects
 HINDUSTAN PETROLEUM CORPORATION LIMITED
 Mangalore-Hassan-Mysore-Solar LPG Pipeline Project
 No. 332, Darus Salam Building, Second Floor,
 Queens Road, Bangalore - 560 052.

Hindustan Petroleum Corporation Limited
(A Government of India Undertaking)
VIJAYAWADA - DHARMAPURI PIPELINE PROJECT

CONSTRUCTION METHODOLOGY

For laying underground pipeline across
Railway / NH / Canal
By Horizontal Boring Method

| CLAUSE NO. | DESCRIPTION |
|------------|---|
| 1.0 | PURPOSE |
| 2.0 | PREPARATION OF BORING PIT AND RECEIVING PIT |
| 2.1 | CASING PIPE PREPARATION |
| 2.2 | CARRIER PIPE PREPARATION |
| 3.0 | EQUIPMENTS |
| 4.0 | BORING INSTALLATION |
| 5.0 | INSTALLATION OF VENT / DRAIN ASSEMBLY |
| 6.0 | CARRIER PIPE INSERTION |
| 7.0 | COMPACTION, FINAL CLEAN UP AND RESTORATION |
| 8.0 | PROVISIONS FOR TRAFFIC MANAGEMENT DURING CONSTRUCTION |

श्री. रमेश R. RAMESH
ज्य. महा प्रबंधक-परियोजना
Deputy General Manager-Projects
विजयवाड़ा-धर्मपुरी पाइपलाइन प्रोजेक्ट
HINDUSTAN PETROLEUM CORPORATION LIMITED
मंगलूरु-हसन-नेल्लूरु-धर्मपुरी पाइपलाइन प्रोजेक्ट
Mangalore-Hassan-Nellore-Dharmapuri Pipeline Project
सं. 332, क्वेन्स रोड, बंगलूरु, कर्नाटक
No. 332, Queens Road, Bangalore, Karnataka
फोन नं. 580 082
Queens Road, Bangalore - 560 082

1.0 PURPOSE

The Horizontal Boring methodology is adopted for laying underground pipeline across Utility Crossings where open cut is not feasible. Utility Crossings may be Railway lines, National Highways, State Highways (With large traffic Volumes) and Major Canals. The boring machine drills a hole under the Utility to allow insertion of the pipe. Casing pipe is first installed in the hole and the carrier pipe is inserted inside the casing pipe. The casing pipe increases the safety of the carrier pipe by shielding it from load stresses. The benefit of the Horizontal Boring Method is that it allows installation of the pipeline without disrupting the existing system.

The work shall include – Preparation of Boring pit, Casing pipe installation, Carrier pipe insertion, Restoration of land.

2.0 PREPARATION OF BORING AND RECEIVING PIT

2.0.1 The horizontal boring will commence from outside the ROW (Right of Way). Prior to start of work, area for installation of boring equipment shall be cleared and boring line shall be marked.

2.0.2 Boring and Receiving pit (minimum of 6M X 2.5M X 3M) shall be excavated to the required depth and width to facilitate smooth boring operation. Sufficient side slopes shall be maintained to avoid collapse / sliding. Bottom of trench or pit at the launching and receiving ends shall be properly graded.

2.0.3 During the execution of boring, the ground water table over the length of boring shall be lower by up to at least 0.5m below bottom of pipeline, to the safeguard the stability of boring pit. The casing pipe shall 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.

2.1.0 CASING PIPE PREPARATION

2.1.1 Visual checking of casing pipe shall be made in order to check out of roundness and to ensure that no dents are present. If any defects are noticed, these may be rectified / removed.

2.1.2 The outside surface of the casing pipe shall be coated with coal tar primer before installation if required.

2.1.3. Welding of casing pipes will be made in the trench bell hole after first length is thrust into crossing in accordance to API 5L.

2.2 CARRIER PIPE PREPARATION

2.2.1 Carrier Pipes shall be welded to the required length of crossing. All joints shall be 100% radio graphed and tested.

2.2.2 After NDT clearance the carrier pipe section shall be pre-tested to the specified pressure. The pressure shall be retained in pipe for minimum period of 02 hours.

2.2.3 After completion of pre testing pipe joint shall be coated. Holiday Detector checks for any coating damage shall be under taken for pipe section. Any damage to coating should be repaired as per approved procedure.

The carrier pipeline and casing would be of carbon steel conforming to API 5 L based on the final design.

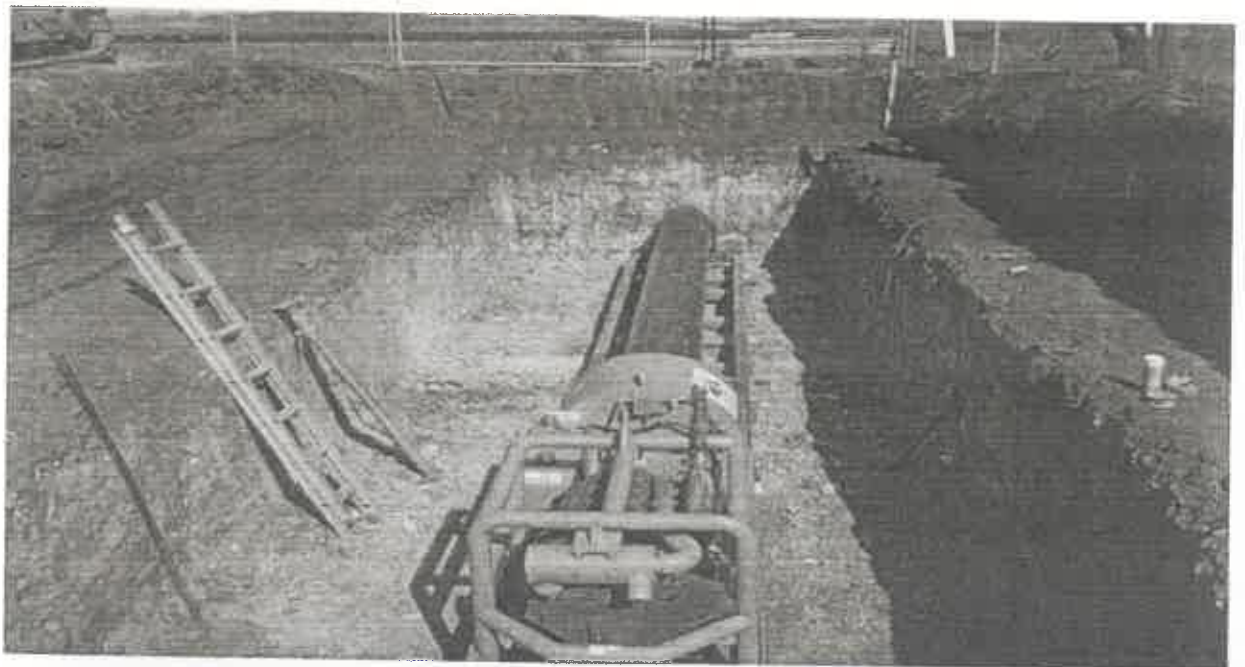
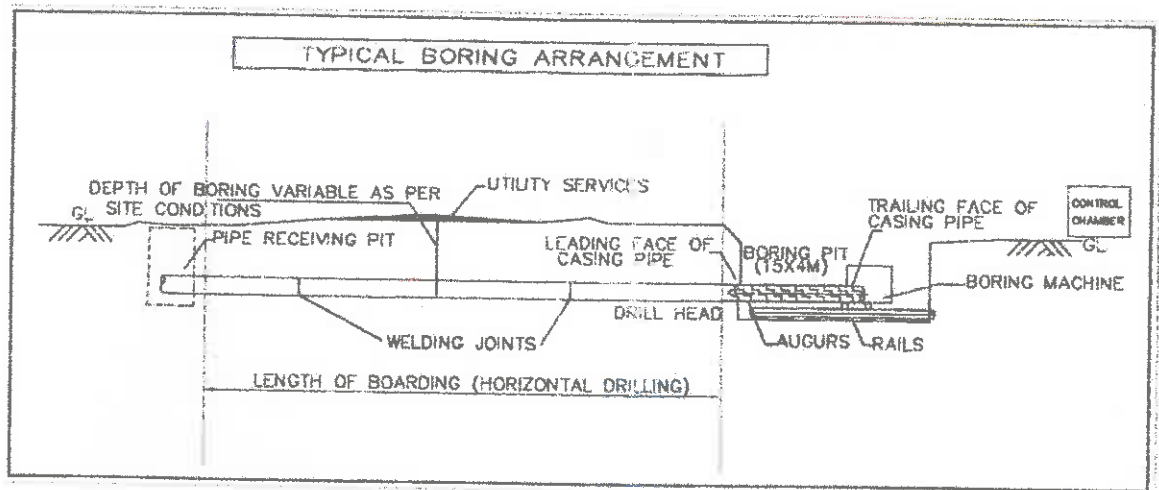
आर. रमेश RAMESH
उप महा प्रबंधक (परियोजना)
Deputy. General Manager-Projects
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
महाराष्ट्र-राज्य-दूर-संचार कक्षाएं एवं अन्य संचार प्रणालियां
प्लॉट नं. 322, बल्लभ नगर, वरुणा
आर. 322 - बल्लभ नगर, वरुणा

3.0 EQUIPMENT

- a. Boring M/c
- b. Side Boom
- c. Backhoe
- d. Auger
- e. Header
- f. Sprit Level

4.0 BORING INSTALLATION

It is proposed to lay underground finished petroleum product pipeline by Horizontal Boring method through casing pipe shall as per the below typical cross sectional plan.



4.1 After leveling of the ground the rails for the machine shall be fixed in the pit and then the Boring Machine shall be lowered & alignment shall be done. The machine shall be traversed on the rails to & fro several times and the alignment shall be checked & rectified, if required.

श्री. रमेश प्रसाद
Deputy. General Manager-Projects
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
मंगलूर-हासन-मैसूर-सोलूर एलपीजी पाइपलाइन प्रोजेक्ट
Mangalore-Hassan-Mysore-Solar LPG Pipeline Project
सं. 332, दारुन सालम बिल्डिंग, दूसरा मंज
No. 332, Darun Salam Building, Second Floor,
कवीर रोड, बेंगलूर - 560 052
Queens Road, Bengaluru - 560 052

4.2 Boring shall be carried out at low speed initially and after inspecting the soil which is cut by the auger the speed shall be increased or decreased. Insertion of casing pipe and auger shall be carried out simultaneously so that at no point of time gap between bored hole and casing pipe exists, eliminating any chance of collapse while boring. The diameter of the hole bored shall be as practicable to the outer diameter of the casing pipe. Level shall be checked at both end of the casing pipe to confirm the slope as per approved drawing.

4.3 For Welding of casing pipes, only normal visual checks shall be carried out & Internal High or Low is not allowed. Care shall be taken to ensure that the lead auger remains in the front, which facilitates easy insertion of the casing pipe.

4.4. After insertion of the first pipe, the pipe and the auger are disengaged from the boring machine. The second pipe is placed in position and the auger of the first and the second pipe are firmly connected. Then both the casing pipes are aligned and welded together. The auger and the casing pipe are again coupled to the boring machine and the boring operation is repeated till the casing pipe is installed and casing pipe exists in the receiving pit on the other side of the crossing. Calculations are made before and during to maintain the alignment necessary to guide casing under the crossing.

4.5 After completion of casing pipe insertion, the machine is de-coupled and taken out. The augers are pulled back and the casing pipe is then thoroughly cleaned to remove any moisture and debris.

5.0 INSTALLATION OF VENT / DRAIN ASSEMBLY

5.1 The installation of vent pipe shall be carried out by direct insertion and welding to the end of the casing pipe before introducing the carrier pipe.

5.2 While welding of vent pipe, internal high / low is not allowed. Welding of vent pipe need not be radio graphed and only visual checks can be carried out.

5.3 The operation of assembling and insertion of the vent pipe shall be carried out in such a way that there is no contact with the carrier pipe.

5.4 The painting of the vent pipes shall be carried out before back filling as per the relevant specification.

6.0 CARRIER PIPE INSERTION

6.1 Before insertion of carrier pipe the completed casing pipe shall be carefully inspected and internally cleaned to remove soil, mud, stones and other foreign materials.

6.2 Specified casing insulator shall be wrapped and securely fastened around the carrier pipe as per approved procedure.

6.3 Care shall be taken in pushing or pulling carrier pipe into the casing so that the pipe is centered in the casing or pulling force is evenly and constantly applied and causes no damage to coating of carrier pipe.

6.4 After insertion of carrier pipe, an electric continuity check shall be carried out between the carrier pipe and casing pipe and soil.

6.5 Casing ends seals shall be provided at both the ends of the casing for sealing the annular space between casing pipe and carrier pipe so as to prevent ingress of moisture / Water.

आर. रमेश R. RAMESH
उप महा प्रबंधक-परियोजना
Deputy General Manager-Projects
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
मंगलूर-हासन-मैसूर-सोन्नत एलपीजी पाइपलाइन परियोजना
Mangalore-Hassan-Mysore-Solar LPG Pipeline Project
सं. 332, वरुण सभागार बिल्डिंग, दूसरा मंज.
No. 332, Varun Sभागार Building, Second Floor,
बनारस रोड, बंगलूर - 560 022


6.6 After positioning and fixing of the end seals these shall be holiday tested prior to backfilling and compaction.

7.0 COMPLETION, FINAL CLEAN – UP AND RESTORATION

After installation of Casing & Casing pipe and completion of tie in with the mainline section, the boring and receiving pit shall be backfilled to the satisfaction of the concerned authorities. The backfilling in launching and receiving pits shall be completed in stages of 150mm layer to 90% modified proctor density, using mechanical compactors. Utmost care must be taken to ensure that the backfill density is in no case lesser than those of surrounding in order to eliminate any shifting of soil under pressure, if required the pits shall be dewatered before back filling and compaction. The complete area shall be cleared up of all scattered materials.

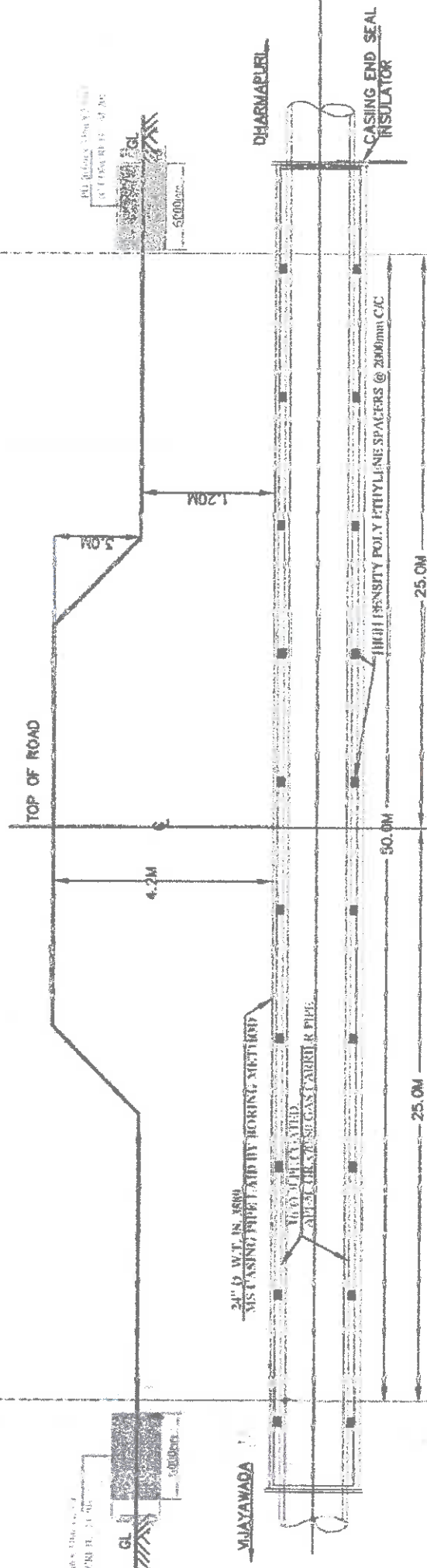
8.0 PROVISIONS FOR TRAFFIC MANAGEMENT DURING CONSTRUCTION

The Machinery & Excavation for boring pit and receiving pits shall be placed outside the Right of Way of Utility and the pipeline laying process shall satisfy all the requisite Indian / International regulatory standards and shall in no way interfere with the existing system.


आर. रमेश R RAMESH
उप महा प्रबंधक-परियोजना
Deputy General Manager-Projects
हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
मंगलूर-हासन-मैसूर-सोलूर एलपीजी पाइपलाइन परियोजना
Mangalore-Hassan-Mysore-Solur LPG Pipeline Project
नं. 332, दावुस गिरम बिल्डिंग, दूसरा मंज,
No. 332, Dabus Giram Building, Second Floor,
क्वीन्स रोड, बेंगलूर - 560 052.
Queens Road, Bengaluru - 560 052.

N.H.
Land Boundary

N.H.
Land Boundary



CROSS SECTION DRAWING

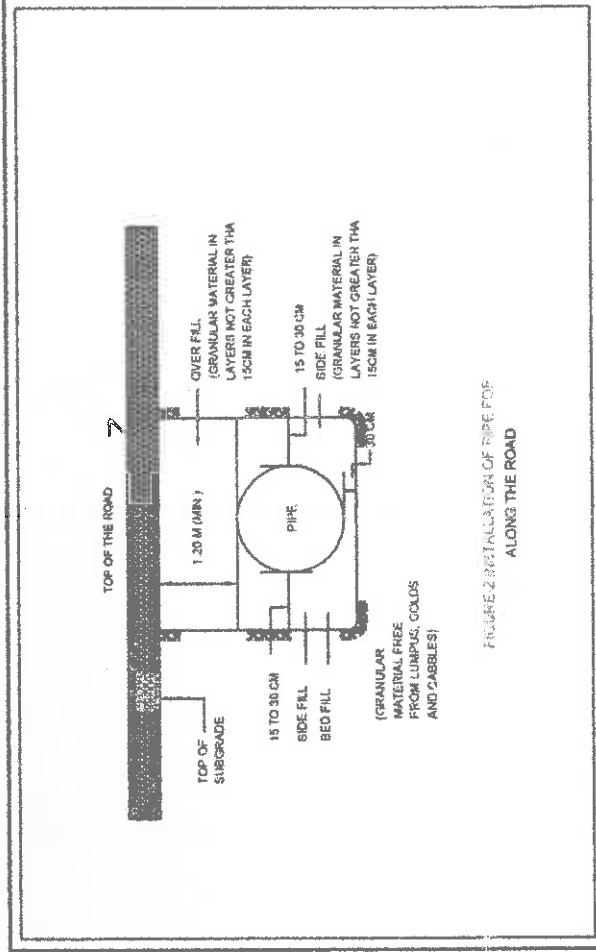
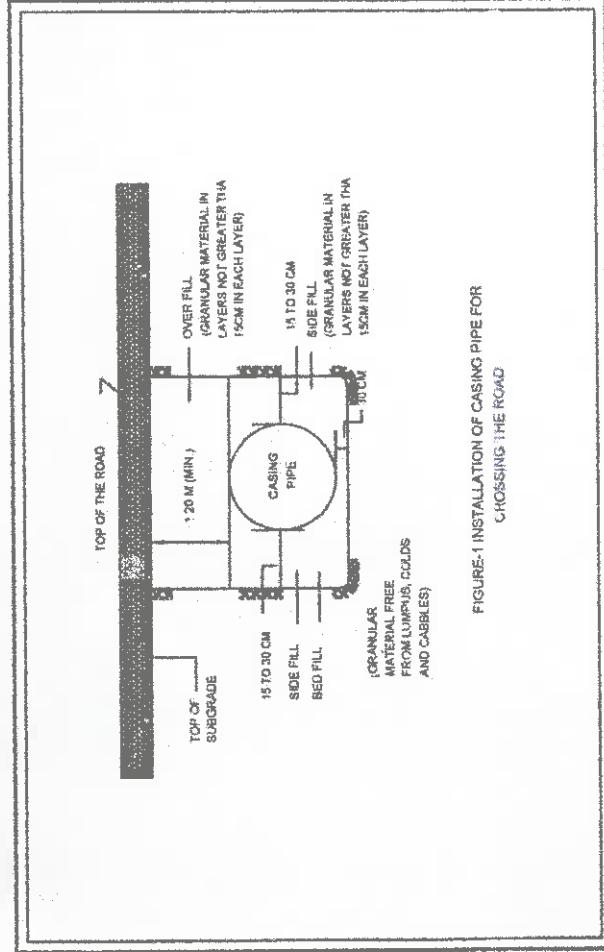
SLN


HINDUSTAN PETROLEUM CORP. LTD.
BANGALORE

Deputy General Manager-Projules
डिप्टी जनरल मैनेजर प्रोजेक्ट्स
INDUSTAN PETROLEUM CORPORATION LIMITED
इण्डस्तन पेट्रोलियम कॉर्पोरेशन लिमिटेड
 Mangalore-Jumeira-Mycon-Bolar LPG Pipeline Project
 मंगळूरु-जुमेरा-मायकॉन-बोल्सर एलपी गैस पाइपलाइन प्रोजेक्ट
 No. 332, Darius Salem Building, Second Floor,
 टारुस सलीम बिल्डिंग, दूसरा तह, नंबर ३३२,
 Queens Road, Bangalore - 560 052.

Project Director
NHAI, PIU, VIJAYAWADA

TYPICAL CROSS SECTIONAL DRAWING

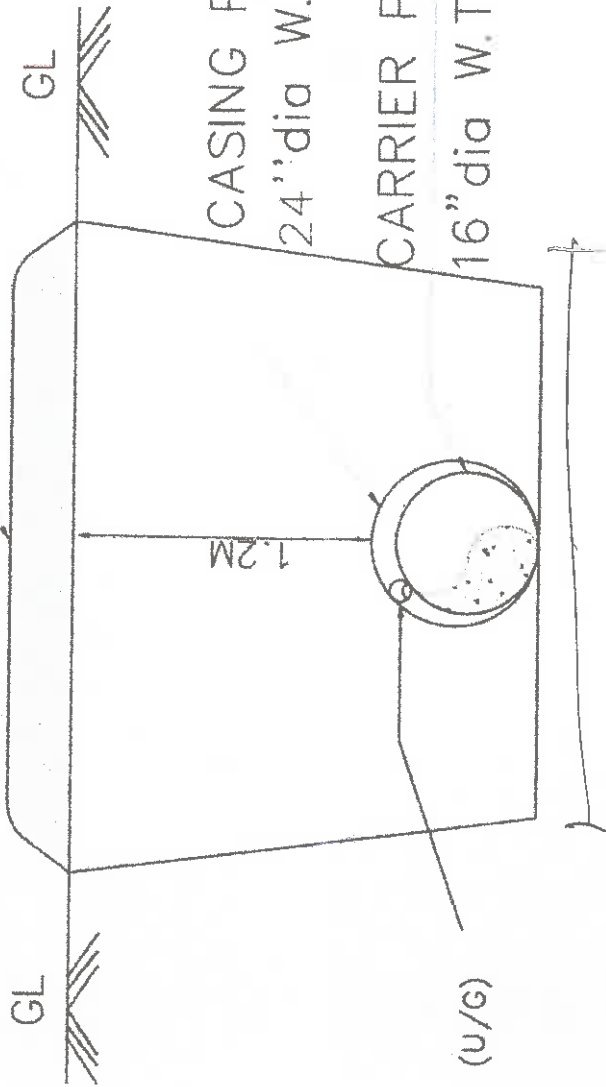


| | |
|---|--|
| CLIENT | HINDUSTAN PETROLEUM CORPN. LTD BANGALORE |
|  | VIJAYAWADA-DHARMAPURI PRODUCT PIPELINE PROJECT NATIONAL HIGHWAY Y-65 CROSSING AT CHAINAGE-235.2KM SECTION - ANDHRA PRADESH |

आर. रमेश R. RAMACHANDRAN
 उपायुक्त प्रबंधक - परिवहन,
 Deputy. General Manager-Projects
 हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
 HINDUSTAN PETROLEUM CORPORATION LIMITED
 मंगलूर-आंध्र-राष्ट्र-जंक्शन पर्यंत उपग्रह प्रोजेक्ट
 Mangalore-Andhra Pradesh State LPG Pipeline Project
 सं. 232, एनएच रास्ता निर्माण, कृष्णा जिला,

METHODOLOGY OF CROSSING

ROAD CRUST



CASING PIPE DIA
24" dia W.T., IS3589

CARRIER PIPE DIA,
16" dia W.T., API-5Lx80



HINDUSTAN PETROLEUM CORPN. LTD.
BANGALORE
VIJAYAN ALIA DHARMAPEER PRODUCT PIPELINE PROJECT
NATIONAL HIGHWAY 65 CROSSING AT CHAINAGE-35.2K1
SECTION - ANDHRA PRADESH

आ. रमेश R. RAMLATH
उप महा प्रबंधक-परियोजना
Deputy. General Manager-Projects
हिंदुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड
HINDUSTAN PETROLEUM CORPORATION LIMITED
महेंद्र-सह्या-नगर-सौर-सोलर एलपीजी पाइपलाइन परियोजना
Mangalore-Hassan-Mysore-Solar LPG Pipeline Project
प्लॉ. 332, एनएस सीडिआर, दूसरा तल.
No. 332, Darus Salam Building, Second Floor,