

4. **MIXER UNIT**

The plant shall include a mixer of an approved twinshaft pugmill type capable of producing a uniform mix. If not enclosed, the mixer box shall be equipped with a dust hood to prevent loss of fines.

5. **MINERAL FILLER SUPPLY UNIT**

There shall be an independent arrangement to feed mineral filler directly into the pugmill. The hopper to bin for mineral filler shall provide for adjustment proportion the feed with the aggregate and binders and shall be capable of being located in any setting.

6. **BITUMEN HEATING :**

A heating system for bitumen always with effective and positive control of temperature shall be provided to maintain proper temperature and for allowing continuous during the entire operating period. Suitable arrangement shall be provided for recording the temperature at the tanks and in the circulating system

7. **SYNCHRONIZATION**

For synchronization of aggregate bitumen and filler feeds satisfactory means shall be provided the effort positive inter-locking control between the flow of aggregate from the bins or compartment flow bitumen from the tank and flow of mineral filler.

Signature of Contractor

Executive Engineer

Signature of the Contractor :
ଉତ୍ତମେଶ୍ୱରୀ ମହାପାତ୍ର :

29/4/20

Signature of the Executive Engineer
ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ମହାପାତ୍ର :

ANNEXURE - 'B'

ADDITIONAL REQUIREMENT FOR THE DRUM MIX PLANT AND PAVER
FINISHER AS PER M.O.S.T. SPECIFICATION.

(IInd REVISION - FEBRUARY - 1988)

- (a) Cold aggregate feed system for providing blended aggregate in the correct proportion (called cold binfeed arrangement)
- (b) Rotating cylindrical dryer drum fitted with suitable burner capable of heating the aggregate to the required temperature without any visible unburnt fuel or carbon residue on the aggregate and to reduce the moisture content of the aggregate to the specified minimum level.
- (c) The dryer units shall be fitted with approved type of thermometric instruments at appropriate places so as to indicate or automatically record / register the temperature of heated aggregate before adding / mixing the binder

(d) GRADATION CONTROL

Except in case of drum mix plant, other two types of plants mentioned above shall have :

- i) A screen unit for accurate sizing of hot aggregate and feeding the same to mixing unit by weight or volume control as per the specified job mix formula
 - ii) Paddle mixer unit shall be capable of producing a homogenous mix with uniform coating of all particles of the mineral aggregate with binder.
- (e) In case of drum mix plant, the cold feed system shall have variable speed belt conveyors / or other suitable devices for regulating the accurate into an even feed flow automatically from a central operating control cabin

Signature of the Contractor :
કચ્છીયતી સહી :

Signature of the Executive Engineer
કચ્છીયતી ઈજનેરની સહી :

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BITUMEN CONTROL UNIT

Capable of measuring / metering and spraying required quantity of bitumen at specified temperature with automatic synchronisation of bitumen and aggregate feed.

FILLER SYSTEM

Fines feeder system suitable to receive bagged or bulk supply of filler material and its incorporation to the mix in the correct quantity shall be a necessary auxiliary.

DUST CONTROL :

A suitable built in dust control equipment for the dryer to contain the exhaust of fine dust into atmosphere for environmental control, wherever so specified by the Engineer.

Suitable auxiliary bitumen boiler of adequate capacity with self heating arrangement and temperature control device. The boiler shall be fitted with temperature indicating instruments.

REQUIREMENT FOR ESSENTIAL FEATURES FOR PAVER FINISHER

- (a) Loading hoppers and suitable distributing mechanism.
- (b) All drives having hydrostatic drive/ control.
- (c) The machine shall have a hydraulically extendable screed for appropriate width requirement.
- (d) The screed shall have temping and vibrating arrangement for initial compaction to the layer as it is spread without rutting or otherwise marring the surface. It shall have adjustable amplitude and infinitely variable frequency.
- (e) The paver shall be equipped with necessary control mechanism so as to ensure that the finished surface is free from surface blemishes.
- (f) The screed shall have internal heating arrangement 20mm thick M.S.S. can be laid by means of self propelled mechanical paver with suitable screeds capable of spreading temping and finishing the mix true to the specified lines grades and cross section.

Signature of Contractor

Executive Engineer

Signature of the Contractor :
કોન્ટ્રાક્ટરની સહી :

૨૯/૬

Signature of the Executive Engineer
કાર્યવાહક ઈજનેરની સહી :

ANNEXURE – "C"

SPECIAL CONDITION FOR BITUMINOUS SURFACE WORK WITH USE OF DRUM MIX PLANT AND PAVER FINISHER.

- [1] The Drum mix plant and accessories to be used for the work shall be conformity with the specifications prescribed vide Govt. of India Ministry of Transport Circular No. RW/RMP/1613784 Dtd. 01-01-87. The plant shall be equipped with all units and accessories as per latest I.S. 3066/1965 as amended from time to time. The contractors will have to modify their plants suitable with in a period of six months from the date of issue of latest I.S. specification or codes (as per applicable on the last date of issue of the tenders)
- [2] The work of laying agreement asphalt hot mixed with bitumen shall start on site of work only after 8.00 hours. in the morning and continue upto 17.00 hours in winter season and upto 18.30 hours in summer. No work shall be done except during the period mentioned above and also on Sundays and national holidays viz, 26th January, 15th August and 2nd October.
- [3] Quantity of bituminous aggregate mix to be laid shall be restricted to 250 tonne per day for 30/40 capacity plant and may be or less depending upon the rated capacity of the plant.
- [4] The work of laying asphalt mix shall start latest within 60 days from the date of issue of work order and will be completed as per time limit. Reasons for delay in starting of work after 60 days shall result into sufficient cause for levying compensation for disproportionate progress. However, the period for 15th June to 15th October being monsoon shall not be counted for the purpose of disproportionate progress and consequent cause for levy of compensation. The contractors shall commence the work of laying pavement on or before the last date of period mentioned above failing which he shall pay compensation not less than Rs. 500/- per day for every day that he shall delay the commencement of the work as above in accordance with Clause – 2 of the contract.
- [5] Further if after commencement of work within 60 days of issue of work-order and after doing some work, the contractor leaves the work in complete except for the following reasons compensation at the Rate of Rs. 500.00 per day will be levied from the date of stoppage of asphalt work to date of its resumption.
 - [1] For the days the stoppage is solely due to break down of machinery and
 - [2] Paver plant is not shifted from the site and no work is done on other site through the paver plant during the period of break down of machinery.

Signature of the Contractor :
ଶ୍ରୀ-ଶ୍ରୀମତୀ ମଣି :

297

Signature of the Executive Engineer
ଶ୍ରୀମତୀ ପ୍ରମିଳା ମଣି :

- [6] However if contractor completes the work within stipulated time as per tender agreement. Government may consider to relax this provision and refund the amount recovered after completion of the work.

The contractor shall invariably get the job mix formula for the mix approved by the Engineer-in-Charge before starting the work.

Signature of Contractor

Executive Engineer

Signature of the Contractor :
ગો-ટ્રાફિક સહી :

૨૭૪

Signature of the Executive Engineer
કાર્યપાલક ઈજનેરની સહી :

ANNEXURE - D

(AS PER GOVT. IN R & B DEPARTMENT CIRCULAR NO.
SNR/1099/IB/91(9)/5 DT. 26-07-1999.)

The contractor shall have to provide a permanent structure laboratory at plant site of at least 25.00 Sqm. Area with provision of water and light facilities.

The contractor shall have to provide following asphalt testing instruments in the laboratory.

[1]	Penetration Test	I.S. 1203
[2]	Softening point Test	I.S. 1205
[3]	Ductility Test	I.S. 1208
[4]	Viscosity Test	I.S. 1206
[5]	Specific gravity Test	I.S. 1202

The above instrument shall be as per I.S. and they shall be calibrated regularly and in working condition.

Note :-

1. Annexure- A-B-C & D attached shall be applicable for drum mix plant paver & its condition.
2. The asphalt shall be brought by the agency at his own cost and shall have to transport the bulk asphalt at plant site Q work site at his own cost and shall have to make satisfactory arrangement at his own cost as directed by the engineer in charge.
3. The bitumen shall be of 80/100 grade satisfying the requirement of I.S. 73.
4. The material (Metal murrum) supplied on site by the agency shall be cross checked by another Deputy Engineer as per rules before spreading the collected materials.

Signature of Contractor

Executive Engineer

Signature of the Contractor :
કોન્ટ્રાક્ટરની સહી :

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Signature of the Executive Engineer
કાર્યપાલક ઈજનેરની સહી :

(ગુજરાત સરકારશ્રીના માર્ગ અને મકાન વિભાગના પરિપત્ર ક્રમાંક : આરજીએન : ૬૦૨૦૦૬ (૩૫) સ.
તા. ૩૧-૦૫-૨૦૦૭)

:: કરારની ખાસ શરતો ::

કામરની કામની ચકાસણી માટે કોરકટીંગ મશીન વસાવવા તથા રૂ. ૧૦૦.૦૦ લાખથી ઉપરના કામ માટે
ઈજારદારશ્રી દ્વારા ફુલટાઈમ ક્વોલીફાઈડ ઈજનેર રાખવા અંગે નીચેની શરતો દાખલ કરેલ છે.

શરતો :-

- (૧) "૫૦ મીમી થી વધુ કામર કામની સંયુક્ત જાણઈ (બી.એસ.જી., બી.બી.એમ સિવાય) હોય તેવા રસ્તાના
કામમાં દર ૨૫૦ મીટર દીઠ એક કોસ સેક્શન પર કામર કામની પહોળાઈ અનુસાર બે થી ચાર કોર
સેમ્પલ ઈજારદારે પોતાના કોર કટીંગ મશીન વડે સંબંધિત નાયબ કાર્યપાલક ઈજનેરની હાજરીમાં મેળવી
આપવાના રહેશે અને આ સેમ્પલ સીલ કરી માન્ય લેબોરેટરી મારફત થીકનેશ, ડેન્સિટી તથા બીટ્યુમીનસ
કન્ટેન્ટના પરિણામ કરાવી પરિણામો મેળવવાના રહેશે. સંતોષકારક પરિણામો આવ્યા સુધી કામર કામની
ચુકવવાપાત્ર રકમના ૫% રકમ વીથહેલ્ડ રાખવામાં આવશે. જે રકમ સંતોષકારક પરિણામો મળ્યા બાદ જ
ફુટી કરાશે. પરંતુ સંતોષકારક પરિણામ નહિ મેળવવાના કિસ્સાઓમાં કરારની અન્ય શરતો અનુસાર
કાર્યવાહી થઈ શકશે"
- (૨) " કરાર હેઠળના કામ પર ઈજારદારે ફુલટાઈમ ક્વોલીફાઈડ એન્જીનીયર નિયુક્ત કરવાનો રહેશે. જે અંગે
કામનો વર્કઓર્ડર મળ્યે દિન-૧૫ માં કાર્યપાલક ઈજનેરશ્રીની જાણ હેઠળ, નાયબ કાર્યપાલક ઈજનેરશ્રીને
નિયુક્ત ઈજનેરના નામ, ક્વોલીફિકેશન, માર્કશીટ, સર્ટીફિકેટ, કલર ફોટોગ્રાફ, નિયુક્તિનો હુકમ વગેરે
વિગત રજુ કરવાની રહેશે તથા કામ પર હાજર થયા અંગેનો રીપોર્ટ આપવાનો રહેશે. જે અનુસાર કરાર
હેઠળના કામ પર ક્વોલીફાઈડ ઈજનેરની ઉપરોક્ત શરત મુજબ નિયુક્તિ થાય તથા સ્થળ પર ખરેખર
કામગીરી ન સંભાળે ત્યાં સુધીના સમયગાળા તેમજ કામ ચાલુ રહે તે સમય દરમિયાન નિયુક્તિ કરેલ ઈજનેર
કામગીરી સંભાળશે નહિ તો તે સમયગાળા માટે રૂ. ૧૫૦૦૦/- પ્રતિ માસ લેખે બીલમાંથી કપાત કરવામાં
આવશે. જે નોન રીફંડેબલ રહેશે".

Signature of the Contractor :
કોન્ટ્રાક્ટરની સહી :

306

Signature of the Executive Engineer
કાર્યપાલક ઈજનેરની સહી :

SPECIAL CONDITIONS OF THE CONTRACT

- [1] 2% of the amount eligible for the payment of bituminous item shall be with held till the miscellaneous items like earthwork in embankment / cutting for side shoulders, side gutters, kilometer / indicator / guard stones, sign boards etc. are completed in all respect by the contractor. After completion of the miscellaneous items, the above said 2% with held amount shall be released.
- [2] Setting up of adequate laboratory & deployment of quality engineer.
- [3] The contractor shall have to set up the laboratory with adequate equipment. Till the setting up of adequate laboratory is completed & reported of this to the engineer(subject to due verification by engineers representative) by contractor in writing, Rs. 2,00,000/- shall be withheld. The qualified quality engineer shall be deployed exclusive for this contract by the contractors. If quality engineer is not deployed by contractor within one month after the date of work order, the amount equivalent to Rs. 15,000.00 per month shall be recovered till the actual deployment of quality engineer. The amount so recovered towards the deployment of quality engineer hall not be refunded.

Asphalt work will have to be cross checked as per G.R. No. RGN/60/2006/35/C Dtd. 31-05-07 before final bill is paid.

Signature of the Contractor :
કોન્ટ્રાક્ટરની સહી :

301

Signature of the Executive Engineer
કાર્યપાલક ઈજનેરની સહી :

Special Condition for Free maintenance guarantee period For New Road Construction

The contractor shall have to give **Five years free maintenance guarantee** from the certified date of completion. During this period contractor shall have to repair the damaged portion of the BT surface of road, and all other executed items at his risk and cost as per direction of Engineers – in – charge. If BT surface during maintenance period of 5 years is worn-out or damaged then, agency shall have to take remedial action as per table below and as directed by Engineer – in – charge. The cost of annual maintenance for five year shall required to be considered while quoting the tender and has to be born by the contractor. The periodicity of routine maintenance activity shall be as follows.

(a) Maintenance of Bituminous surface road and/or Cement concrete road and/or gravel road and/or WBM road including filling pot holes and patch repairs etc as per clause 1904, 1905, 1906 and 1907 of the Specifications for Rural Roads (First Revision) IRC New Delhi 2014 respectively.

Sr No	Distress and service Level	Remedy	Period to attend for the Contractor
1	Potholes	As per IRC:SP:20-2002 and specifications for rural roads of IRC:2014	7 Days
2	Surface damages/worn out surface in more than 50 meters of lane length in the road stretch	Renewal with wearing coat as originally laid by contractor - as per tender item and specification.	21 Days
3	Patch work area exceeds 30% in per KM length		

(b) Other maintenance works to be carried out:

Sr No	Name of Item/Activity	Frequency of operation in one year
1	Restoration of rain cuts and dressing of berms as per clause 1902 of the Specification for Rural Roads (First Revision) IRC New Delhi 2014.	As and when required
2	Maintenance of earthen shoulders as per clause 1903 of the Specification Rural Roads (First Revision) IRC New Delhi 2014.	As and when required.
3	Maintenance of drains as per clause 1908 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Twice in a year before/after monsoon
4	Maintenance of culverts and causeways including vent clearance as per clause 1909 and 1910 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Twice in a year before/after monsoon
5	Maintenance of road signs as per clause 1911 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Maintenance as and when required. Repainting once in every two years.
6	Maintenance of guard rails and parapet rails as per clause 1912 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Maintenance as and when required. Repainting once in a year.
7	Maintenance of 200 m and Kilo Meter stones as per clause 1913 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Maintenance as and when required. Repainting once in a year.
8	White washing guard stones	Once in year
9	Re-fixing displaced guard stones / KM stone / 200 meter stone/Sign board	Once in year
10	Maintenance of road delineators as per Clause 1914 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	As and when required
11	Cutting of branches of trees, shrubs and trimming of grass and weeds etc as per clause 1915 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Twice in a year generally before/after rains or as and when required
12	White washing parapets of CD Works as per Clause 1916 of the Specifications Rural Roads (First Revision) IRC New Delhi 2014.	Once in year

However Maintenance does not include replacement or erection of new signages / stones etc. at the time of yearly maintenance. **The amount equivalent to 5 % of each bill shall be withheld** and will be released after the free maintenance guarantee period of five year is over.

However this amount shall be released against fix deposit or Bank Guarantee pledged in the name of Executive Engineer after completion certificate of work is issued.

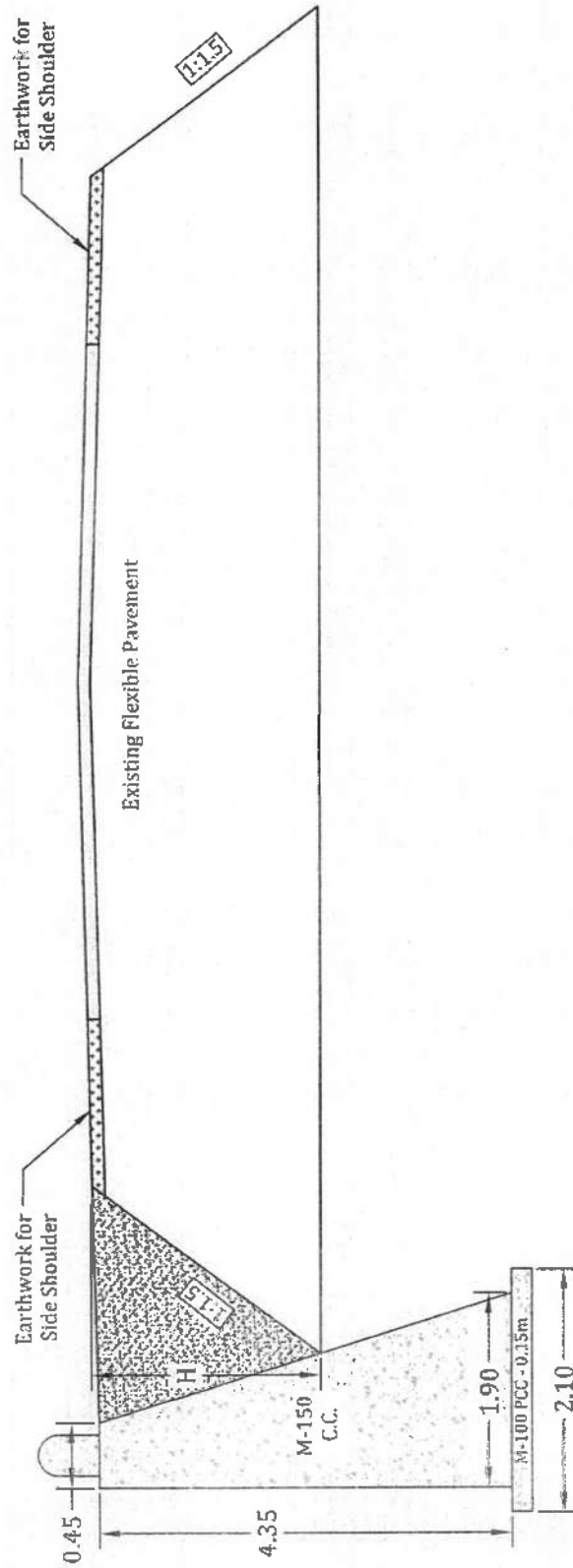
302

The contractor has to carry out routine maintenance as said above & has to report the Engineer-in-charge in the month of May and November of every year with a copy of the record of contractor's inspection and other instructions received from the Engineer-in-charge and maintenance carried out with colour photograph showing before and after maintenance (@ 3 nos. Of photographs per kilo metre of lane length with date and time digitally incorporated to be submitted by the contractor in 3 sets)


In the event of contractor not carrying out routine maintenance within time limit as specified above, the employer will get the maintenance work carried out through any source and the amount required **for this work shall be recovered from the 5% amount withheld for this purpose** available with the employer along with additional 20% of this amount as penalty.

Executive Engineer
Panchayat (R&B) Division
Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Dwarka Vasai Hamusar Road Between Km.16/800 to 16/820 (ODR) Ta.-Dwarka Dist.- Devbhumi Dwarka

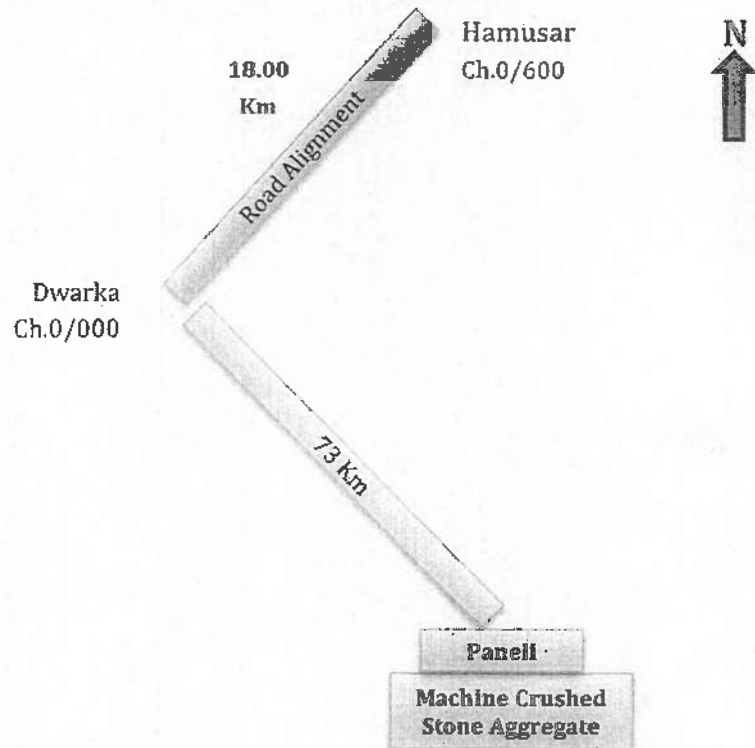


TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ KM.16/820 TO 16/900

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :-Construction of Hume Pipe Drain On Dwarka Vasai Hamusar Road Between Km.16/800 to 16/820 (ODR) Ta.:-Dwarka Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	1	Km	+	9	10.00
Machine Crushed Stone Aggregate-40 to 63mm Size	73	Km	+	9	82.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	73	Km	+	9	82.00
Stone Dust	73	Km	+	9	82.00
NP3 Pipe-R.C.C. (Upleta)	176	Km	+	9	185.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.

[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Dwarka Vasai Hamusar Road Between Km.16/800 to 16/820 (ODR) Ta:-Dwarka Dist:- Devbhumi Dwarka

EXT. SURFACE	0/000	0/500	1/000	1/500	2/000	2/500	3/000	3/500	4/000	4/500	5/000	5/500	6/000	6/500	7/000	7/500	8/000	8/500	9/000	9/500	10/000
EXT. C.D.																					
ITEMS																					
EXT. WBM																					
EXT. SURFACE																					
EXT. C.C.																					
EXT. C.D.																					
CHAINAGE																					
PROP. WBM																					
PROP. B.T.																					
PROP. C.C.																					
PROP. C.D.																					
ITEMS																					
EXT. WBM																					
EXT. SURFACE																					
EXT. C.C.																					
EXT. C.D.																					
CHAINAGE																					
PROP. WBM																					
PROP. B.T.																					
PROP. C.C.																					
PROP. C.D.																					

Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka



Lalpur

V

Legend

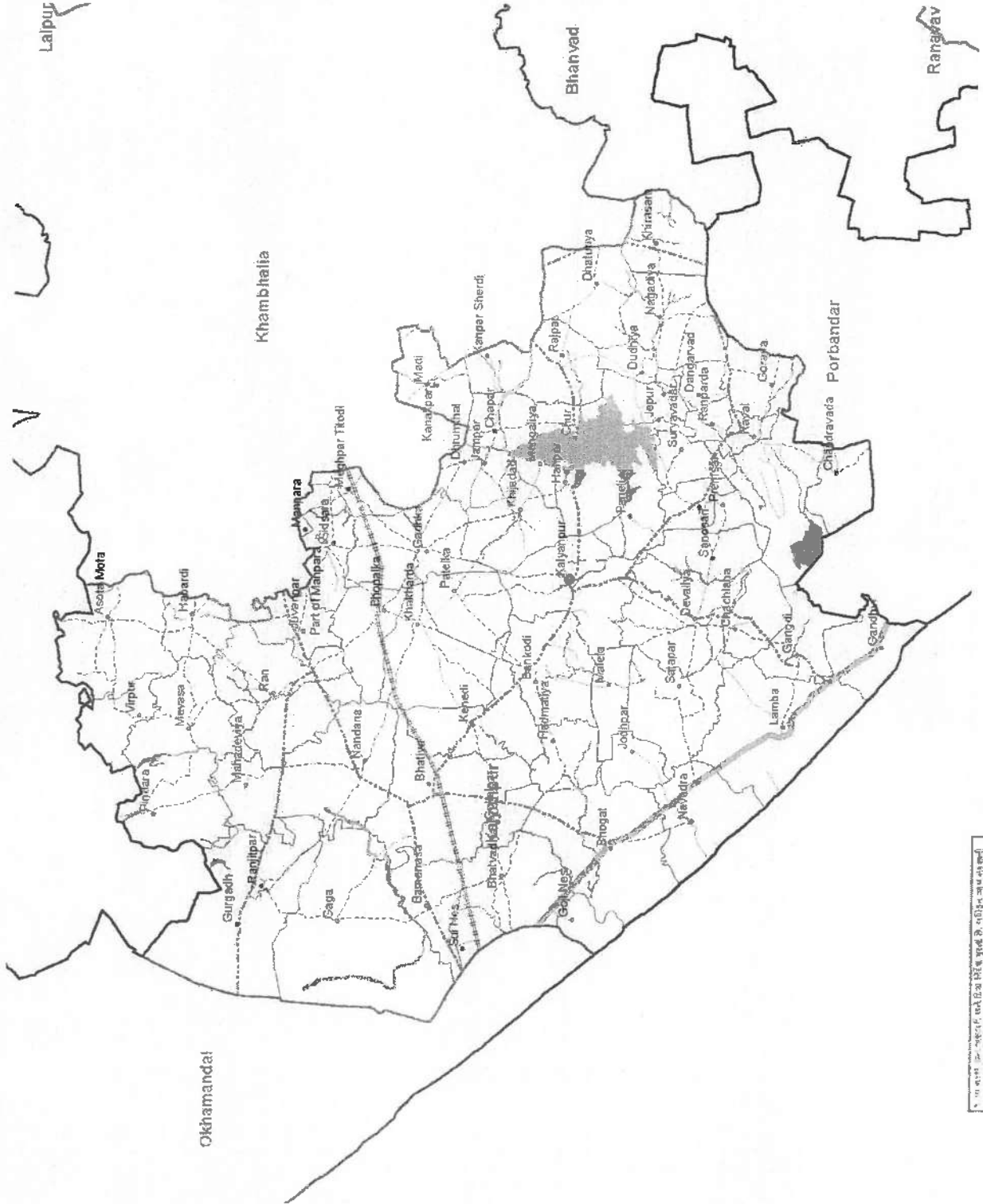
•	Settlement
•	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
—+—+—	Railway
—	Road
—+—+—+—+—	Expressway
—+—+—+—+—	National Highway
—+—+—+—+—	State Highway
—+—+—+—+—	District Road
—+—+—+—+—	Village Road

Date Source:



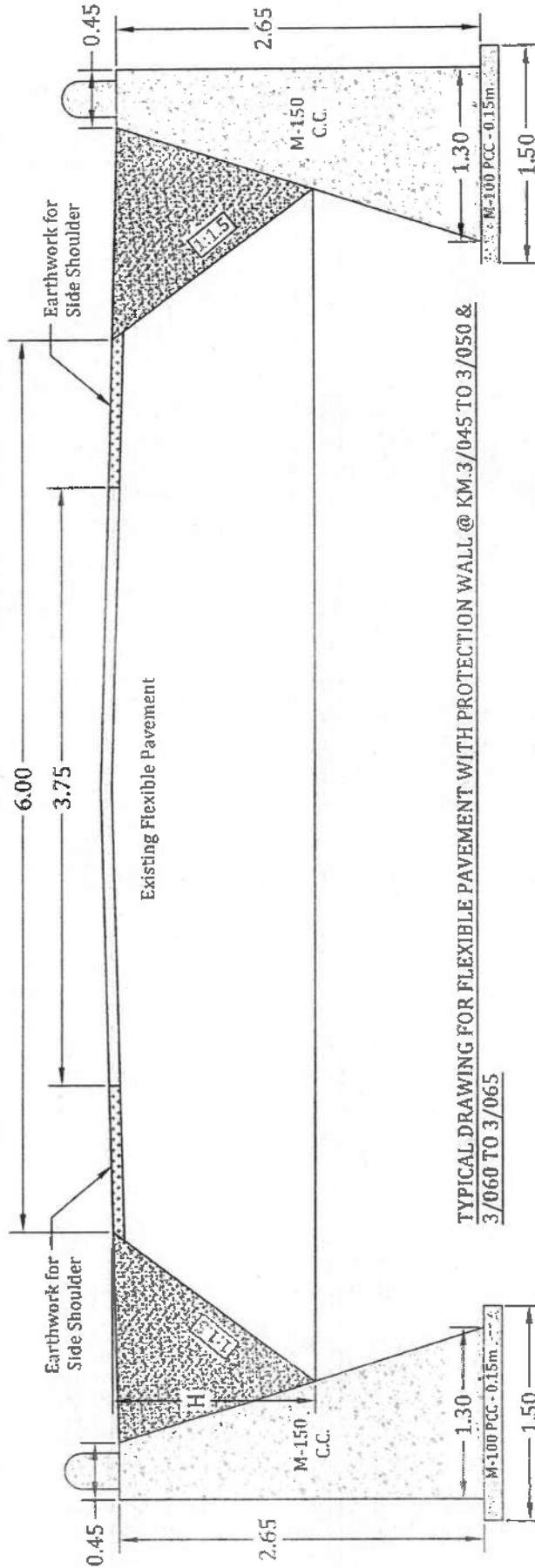
Settlement commissioner and Land Record

Prepared By: **BISAG**
ISO 9001:2015
ISO 27001:2005
CMMI Level-3




Map not to Scale

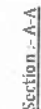
Name of Work :-Construction of Vented Causeway On Sanosari To Jamdevaliya Road Between Km.1/100 to 1/300 (VR) Ta.:-Kalyanpur Dist.:- Devbhumi Dwarka



TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ KM.3/045 TO 3/050 & 3/060 TO 3/065

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

VENTED CAUSEWAY 3 Row x 900mm with L=30m at Ch.1/180

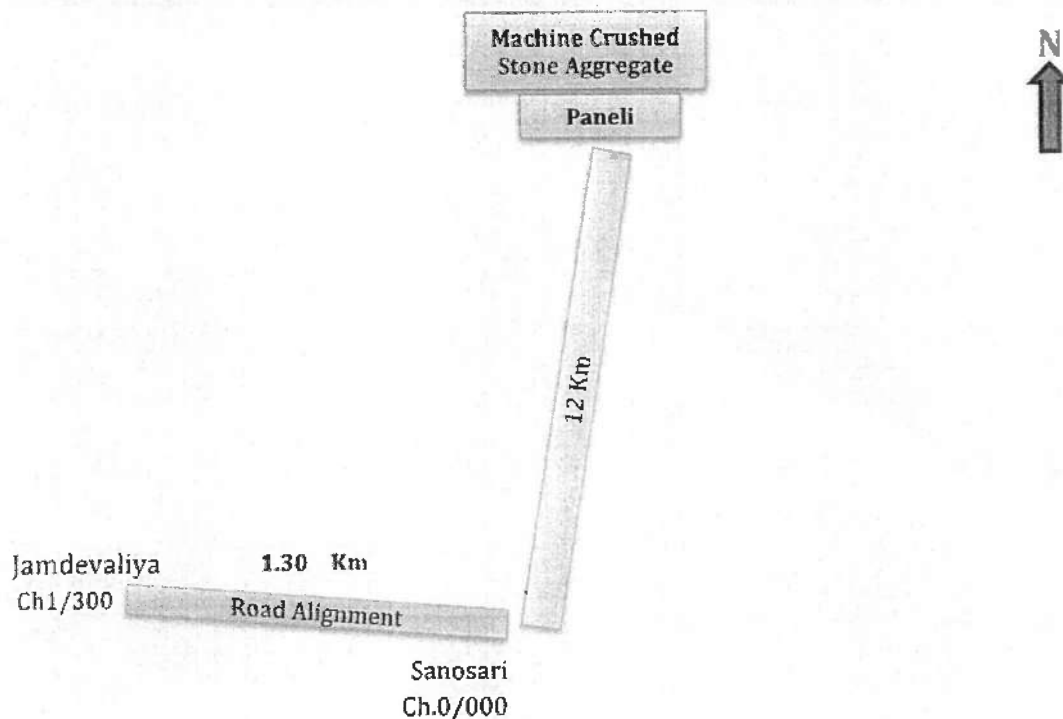


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Cradle Section of Vented Causeway

Name of Work :-Construction of Vented Causeway On Sanosari To jamdevaliya Road Between Km.1/100 to 1/300 (VR) Ta.:-Kalyanpur Dist.:- Devbhumi Dwarka


LEAD CHART OF QUARRY MATERIAL

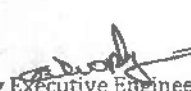


Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	4	Km	+	1	5.00
Machine Crushed Stone Aggregate-40 to 63mm Size	12	Km	+	1	13.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	12	Km	+	1	13.00
Stone Dust	12	Km	+	1	13.00
NP3 Pipe-R.C.C. (Upleta)	121	Km	+	1	122.00





CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.


Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

EXT. SURFACE	EXT. C.D.	PROP. W.B.M.	PROP. C.C. ROAD
			
EXT. SURFACE	EXT. C.D.	PROP. W.B.M.	PROP. C.C. ROAD
EXT. SURFACE	EXT. C.D.	PROP. B.T.	PROP. C.D.

ITEMS	CHAINAGE
EXT. WBM	0/000
EXT. SURFACE	0/250
EXT. C.C.	0/500
EXT. C.D.	0/750
LLCW	1/000
	1/250
	1/500
	1/750
	2/020
PROP. WBM	
PROP. B.T.	
PROP. C.C.	
PROP. C.D.	
VCW	

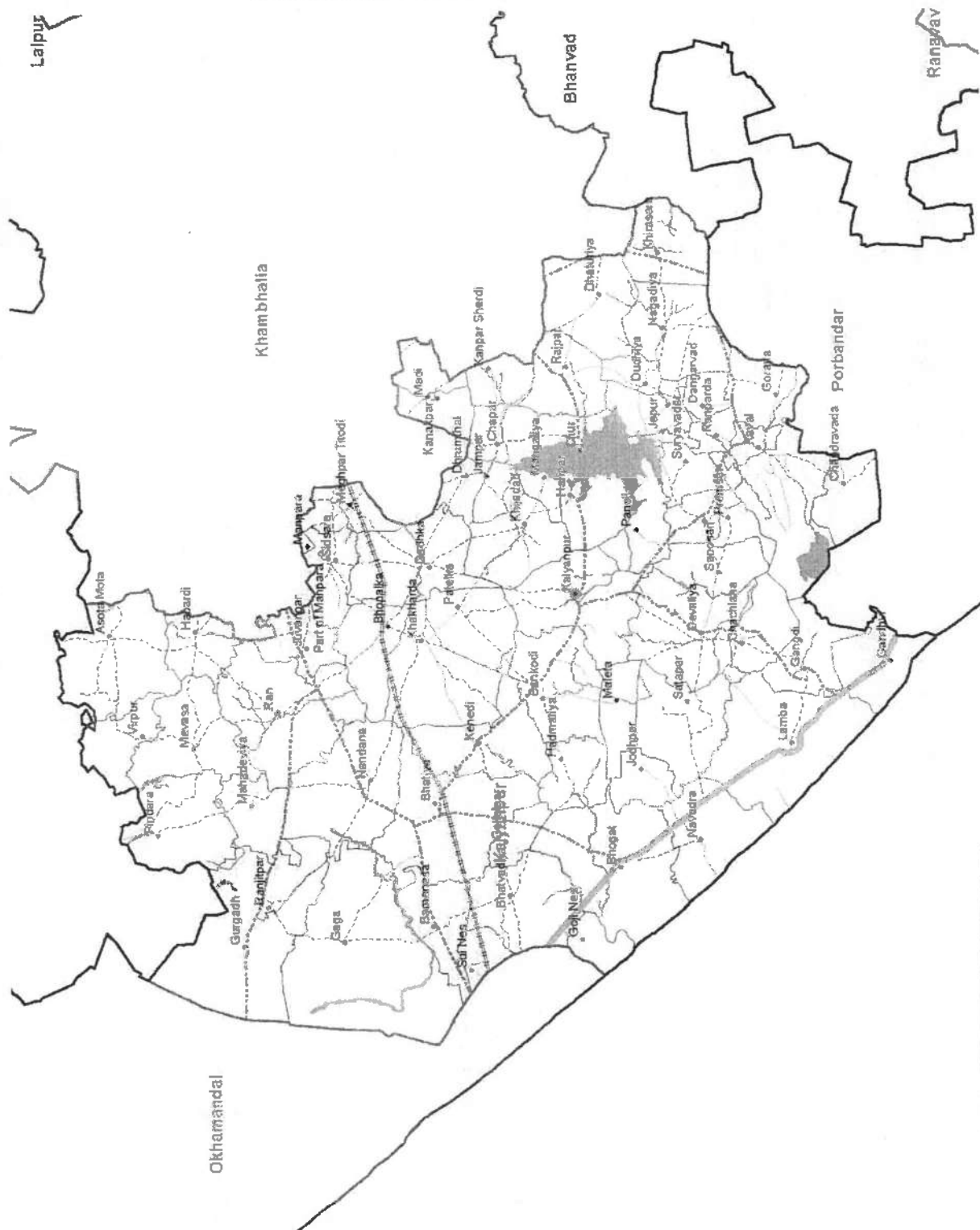
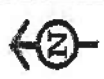
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

**Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka**

District : Devbhumi dwarka : Kalyanpur

For official use only



Okhamandal

Khambhalla

Bhanvad

Rangav

Porbandar

Legend

•	Settlement
•	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
—+—+—	Railway
—	Road
—	Expressway
—	National Highway
—	State Highway
—	District Road
—	Village Road

Data Source:



Settlement Commissioner and Land Record

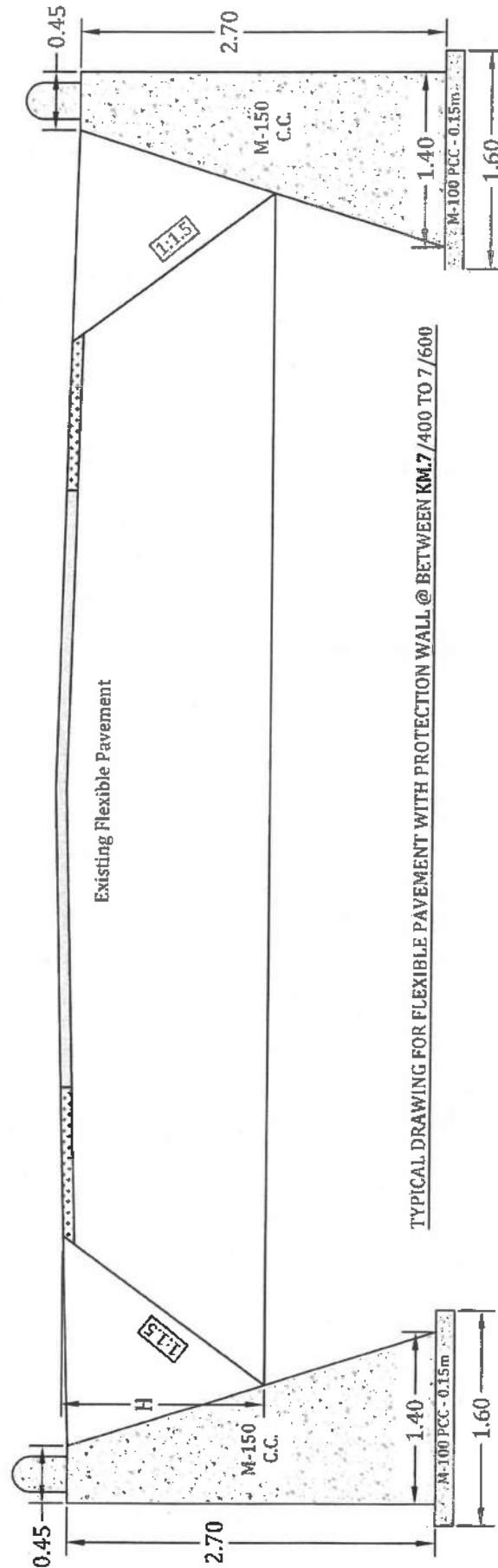
Prepared By:
BISAG
ISO 9001:2008
ISO 27001:2005
CERTIFIED



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2. The map is not to be used for any other purpose without the permission of the Survey of India.
3. The map is not to be used for any other purpose without the permission of the Survey of India.

Map not to Scale

Name of Work :- Construction of Vented Causeway & P/W On Dholamulavasar Nanabhavda Aniyaari Khatumba Road
Between Km.7/400 to 7/600 (ODR) Ta.:- Dwarka Dist.:- Devbhumi Dwarka

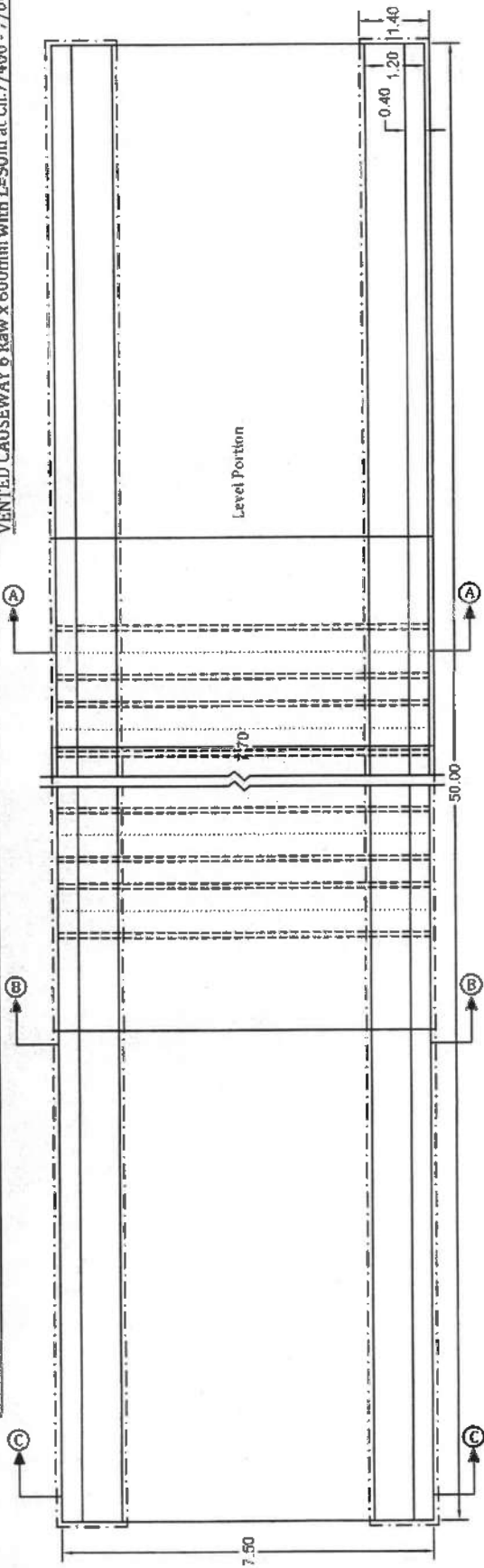


TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ BETWEEN KM.7/400 TO 7/600

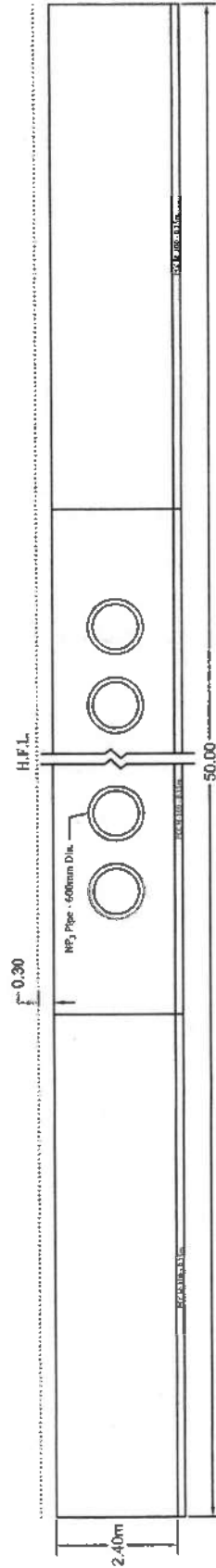
Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

Name of Work :- Construction of Vented Causeway & P/W On Dholamulavasar Nanabavda Aniyaari Khatumbh
Between Km.7/400 to 7/600 (ODR) Tal:- Dwarka Dist:- Devbhumi Dwarka

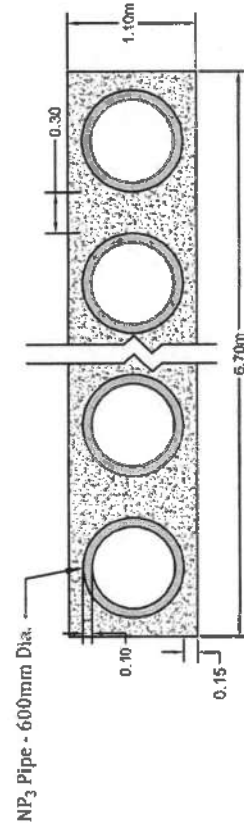
VENTED CAUSEWAY 6 Raw x 600mm with L=50m at Ch.7/400 - 7/600



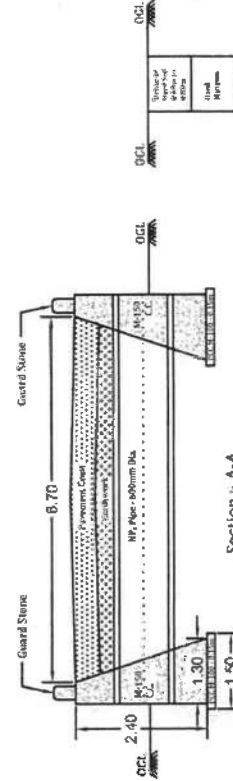
Plan of Vented Causeway



Elevation of Vented Causeway



Credle Section of Vented Causeway

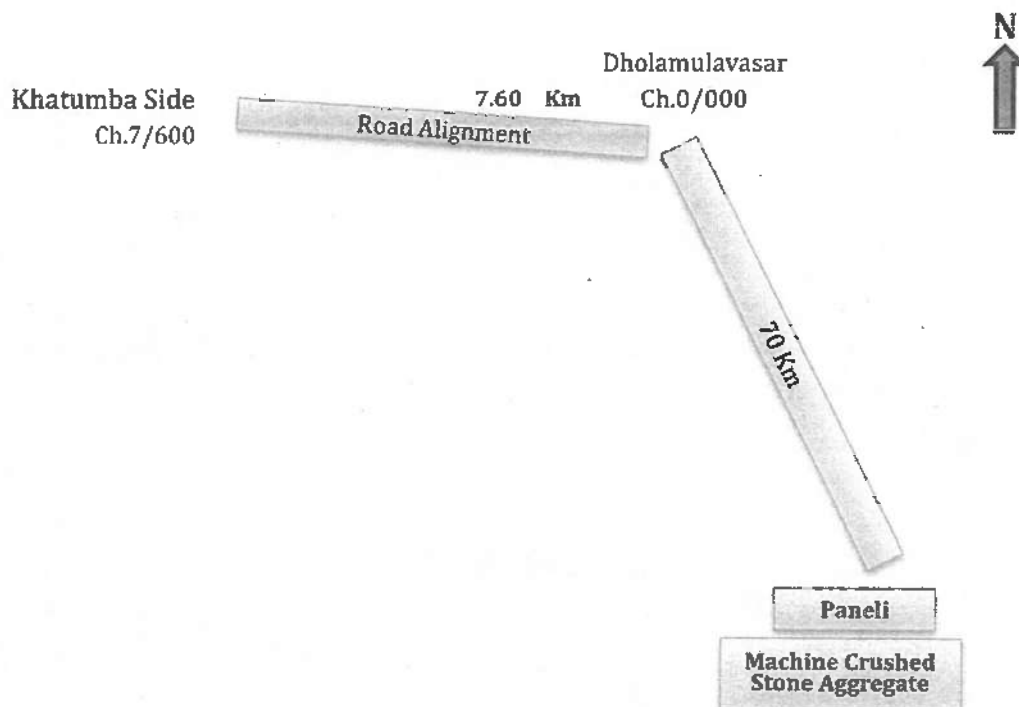


Trial Pit of Vented Causeway

Sign:-	Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Devbhi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :-Construction of Vented Causeway & P/W On Dholamulavasar Nanabhavda Aniyaari
Khatumba Road Between Km.7/400 to 7/600 (ODR) Ta.:Dwarka Dist.: Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	1	Km	+	4	5.00
Machine Crushed Stone Aggregate-40 to 63mm Size	70	Km	+	4	74.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	70	Km	+	4	74.00
Stone Dust	70	Km	+	4	74.00
NP3 Pipe-R.C.C. (Upleta)	178	Km	+	4	182.00

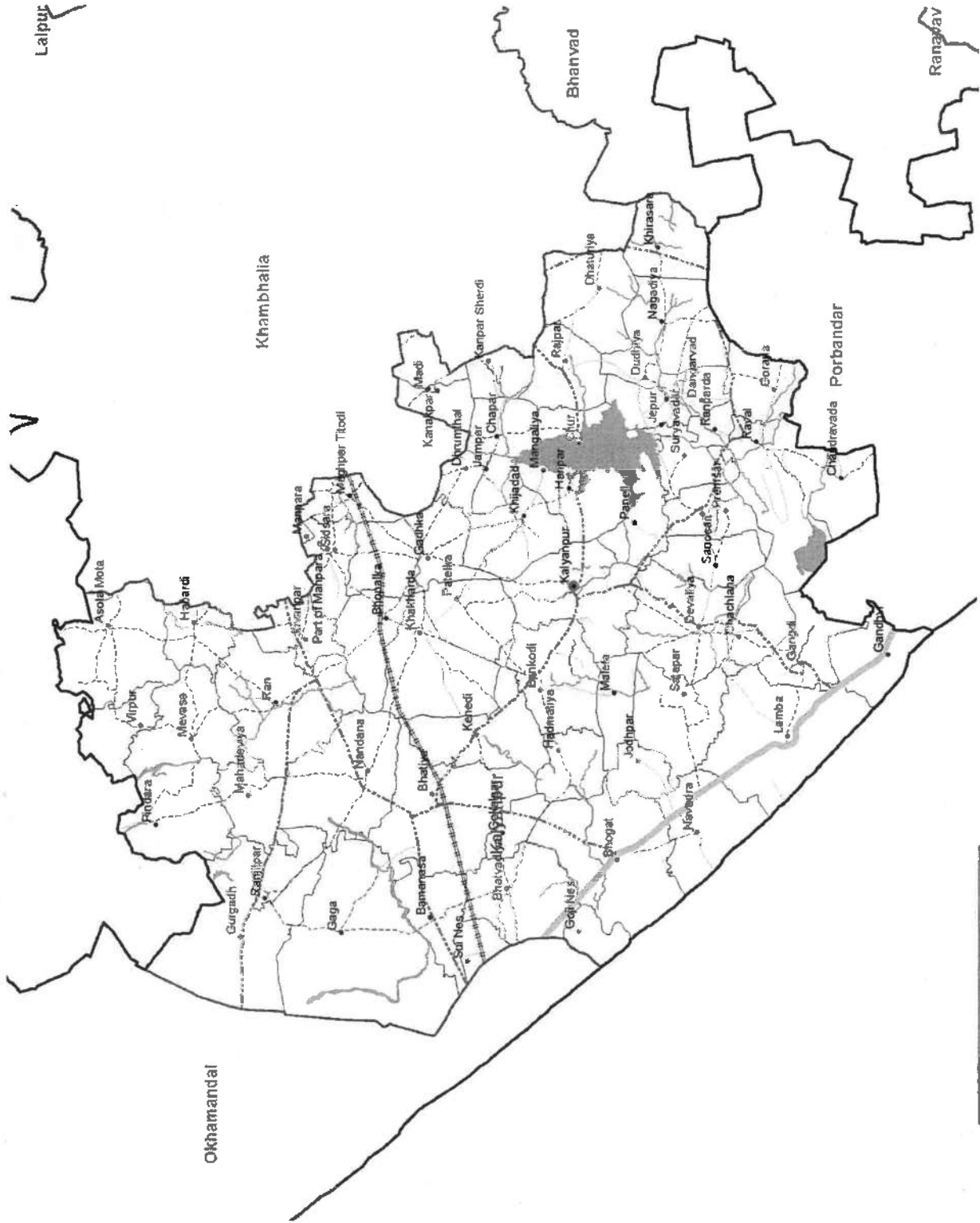
CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.

[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka



Legend

•	Settlement
•	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
—+—+—	Railway
—	Road
—	Expressway
—	National Highway
—	State Highway
—	District Road
—	Village Road

Data Source:



Settlement commissionerate and Land Record

Prepared By:

BISAG
Bhuvanikar
Bhuvanikar
Bhuvanikar
Bhuvanikar

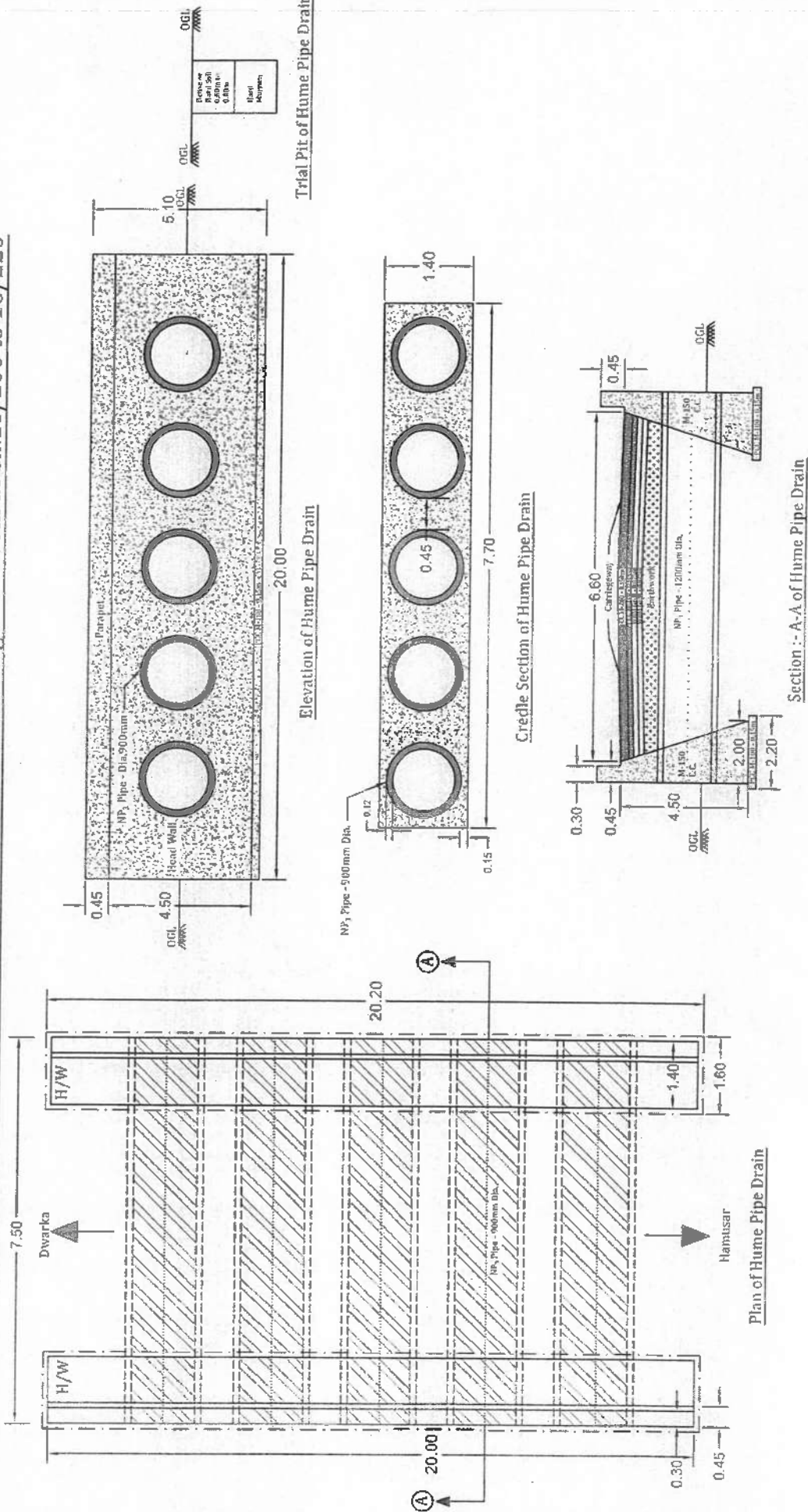


Map not to Scale

1. The map is prepared and the B.L. is given to the village and the map is not to be used for any other purpose.
2. The map is not to be used for any other purpose.
3. The map is not to be used for any other purpose.

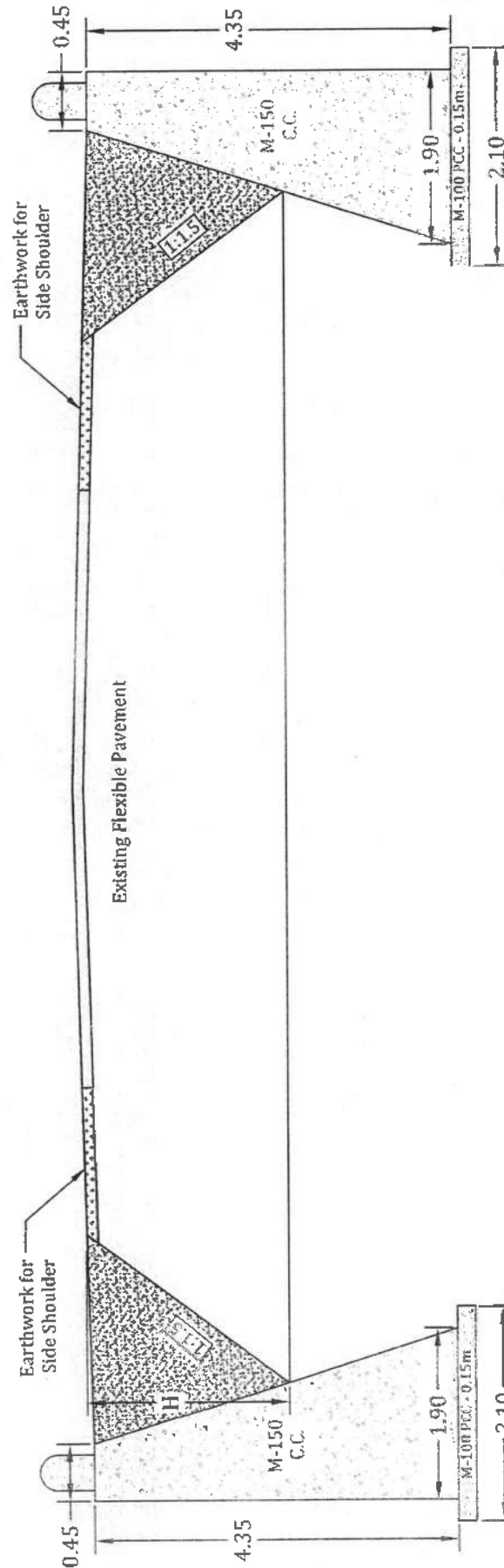
Name of Work :- Construction of Hume Pipe Drain On Dwarka Vasai Hamusar Road Between Km.16/200 to 16/220 (ODR) Ta.-Dwarka Dist.- Devbhumi Dwarka

HUME PIPE DRAIN - 5 Nos. of Raw x 900mm Dia. With Length - 20.00m at Ch.16/200 to 16/220




Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Dwarka Vasai Hamusar Road Between Km.16/200 to 16/220 (ODR) Ta.:-Dwarka Dist.:- Devbhumi Dwarka

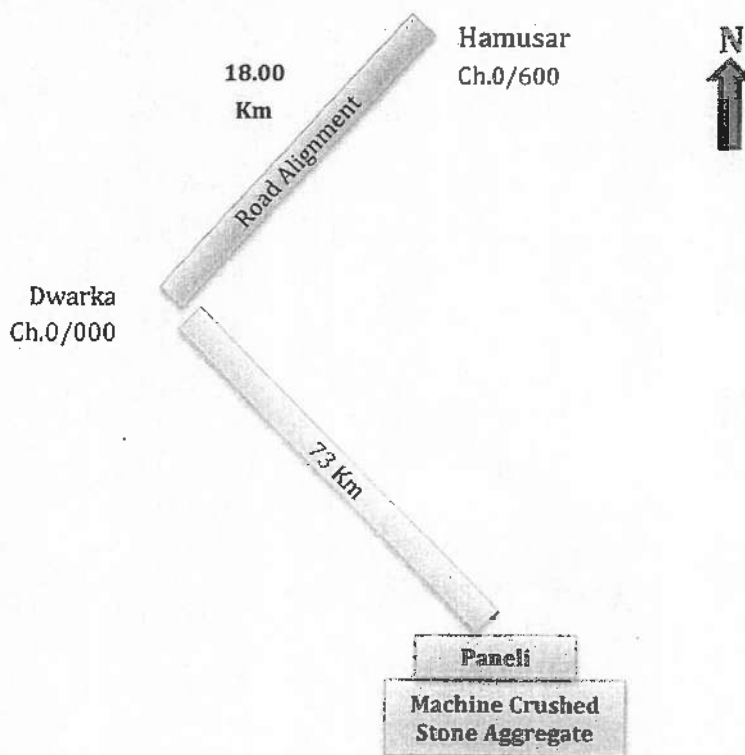


TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ KM.16/220 TO 16/240

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :-Construction of Hume Pipe Drain On Dwarka Vasai Hamusar Road Between Km.16/200 to 16/220 (ODR) Ta.:-Dwarka Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	1	Km	+	9	10.00
Machine Crushed Stone Aggregate-40 to 63mm Size	73	Km	+	9	82.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	73	Km	+	9	82.00
Stone Dust	73	Km	+	9	82.00
NP3 Pipe-R.C.C. (Upleta)	176	Km	+	9	185.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.

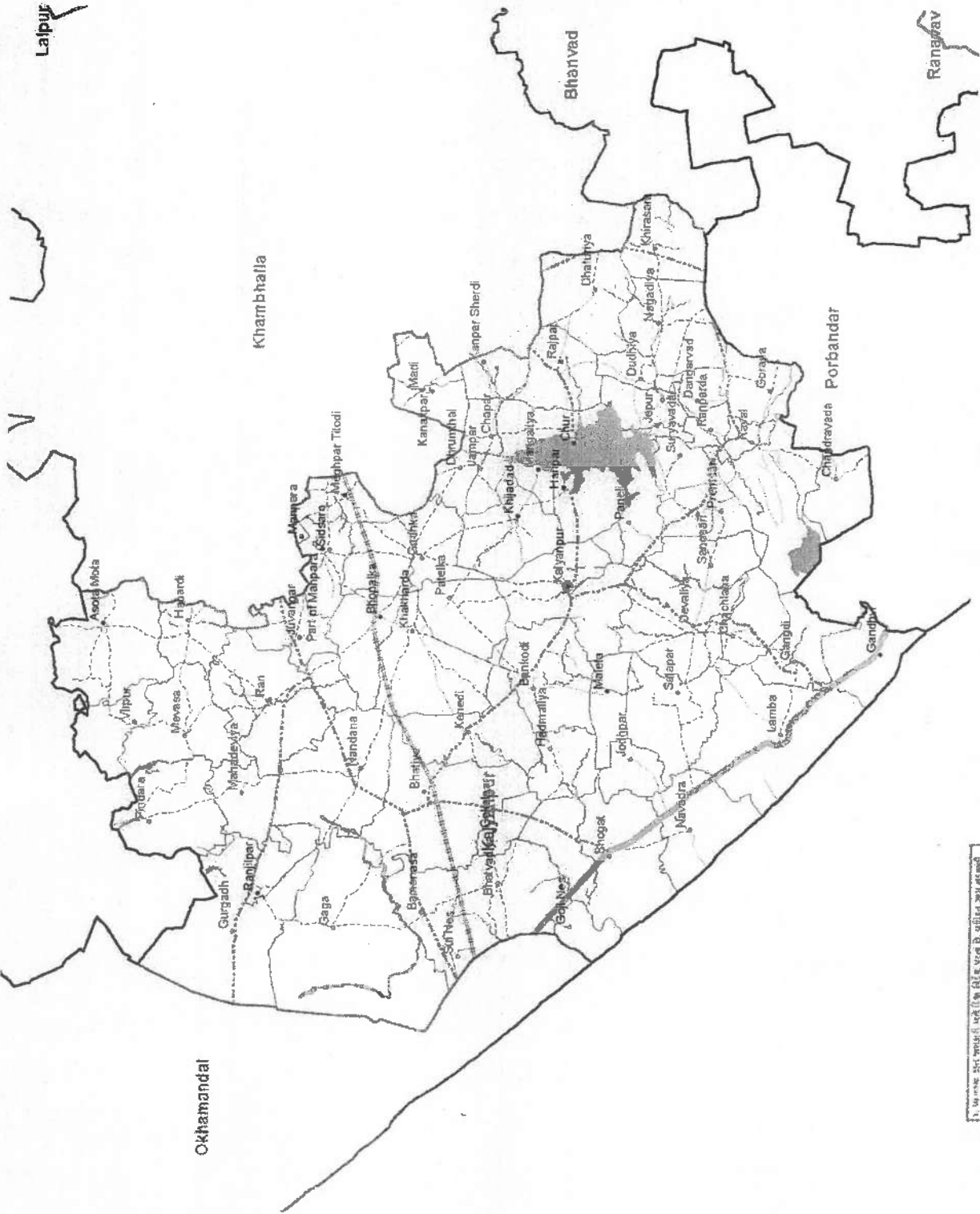
[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

District : Devbhumi DwarTakuka : Kalyanpur

For official use only



Legend

- Settlement
- Taluka Head Quarter
- Village Boundary
- Taluka Boundary
- District Boundary
- ~ River
- ≡≡≡ Railway
- Road
- Expressway
- National Highway
- State Highway
- District Road
- Village Road

Data Source:



Settlement Commissioner's and Land Record

Prepared By: **ISAG**
ISO 9001:2008
ISO 14001:2004
CNMI Level-3

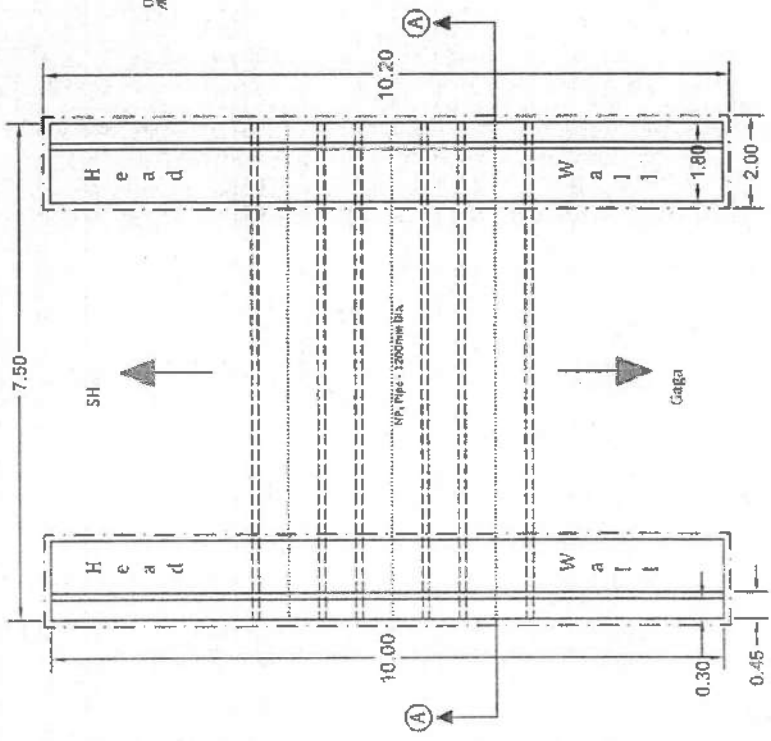


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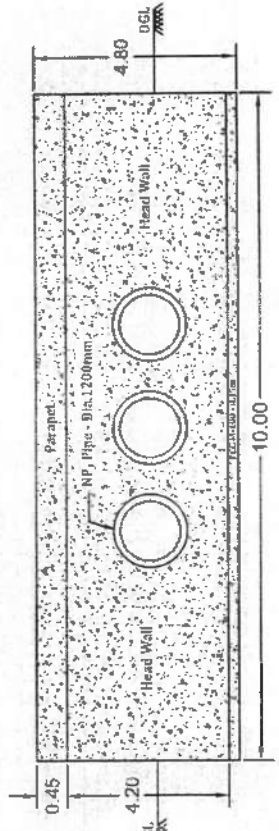
1. The map is not to scale. It is for reference only. It is not to be used for any purpose other than reference.
2. The map is not to scale. It is for reference only. It is not to be used for any purpose other than reference.
3. The map is not to scale. It is for reference only. It is not to be used for any purpose other than reference.

Name of Work :- Construction of Hume Pipe Drain On Gaga Approach Road Between Km.3/600 to 3/800 (MDR) Ta:-Devbhumi Dwarka Dist:- Devbhumi Dwarka

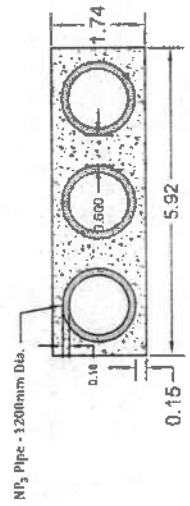
HUME PIPE DRAIN - 3 Nos. of Raw x 1200mm Dia. With Length - 10m at Ch.3/650



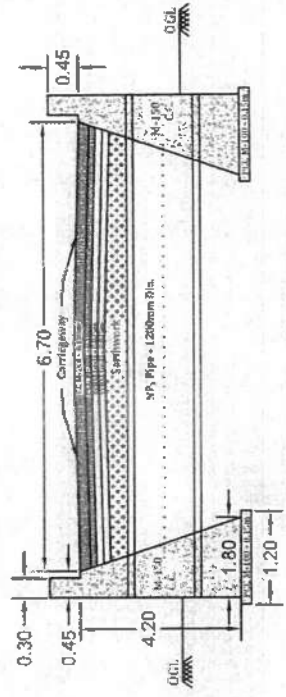
Plan of Hume Pipe Drain



Elevation of Hume Pipe Drain

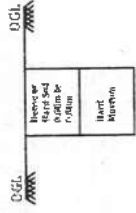


Credle Section of Hume Pipe Drain



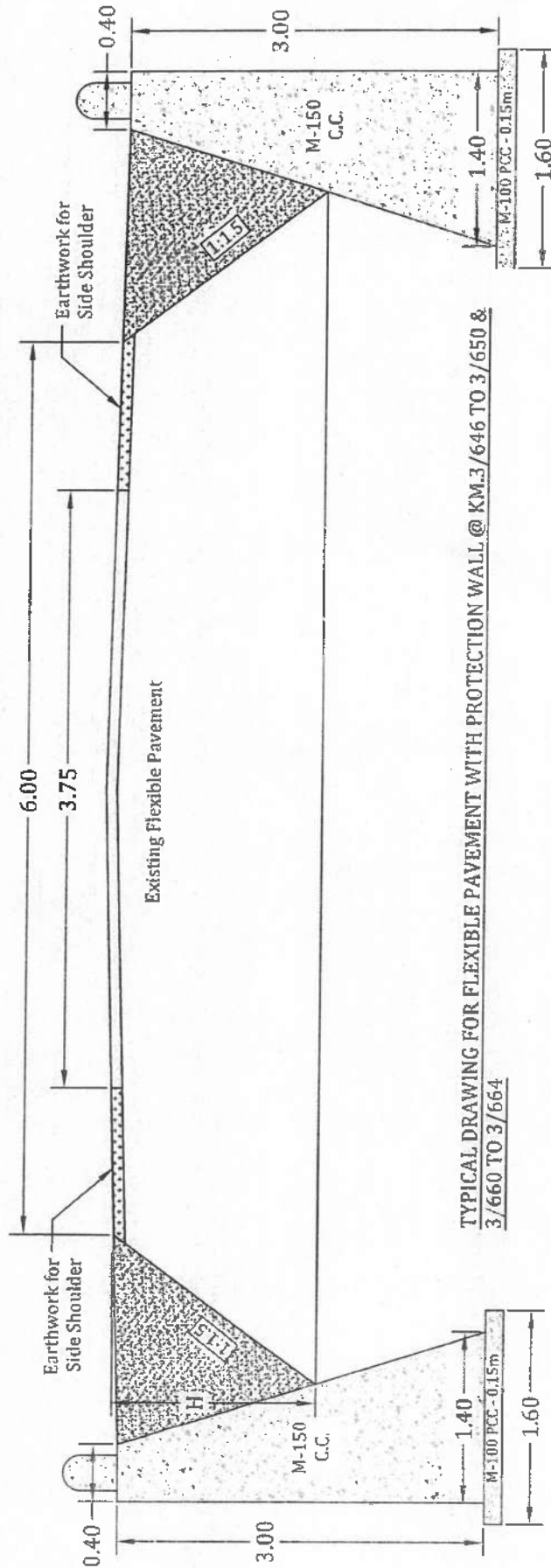
Section :- A-A of Hume Pipe Drain

Trial Pit of Hume Pipe Drain




Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Ganga Approach Road Between Km.3/000 to 3/600 (MDR) Ta.:-Devbhumi Dwarka Dist.:- Devbhumi Dwarka



TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ KM.3/646 TO 3/650 & 3/660 TO 3/664

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :-Construction of Hume Pipe Drain On Gaga Approach Road Between Km.3/600 to 3/800 (MDR) Ta.:-Devbhumi Dwarka Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL

Gaga Side Ch.3/600

3.60 Km
Road Alignment
SH
Ch.0/000

36 Km



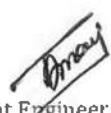
Paneli


Machine Crushed
Stone Aggregate

Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	3	Km	+	2	5.00
Machine Crushed Stone Aggregate-40 to 63mm Size	36	Km	+	2	38.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	36	Km	+	2	38.00
Stone Dust	36	Km	+	2	38.00
NP3 Pipe-R.C.C. (Upleta)	151	Km	+	2	153.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.


Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Gaga Approach Road Between Km.3/600 to 3/800 (MDR) Ta.: Devbhumi Dwarka Dist.: Devbhumi Dwarka

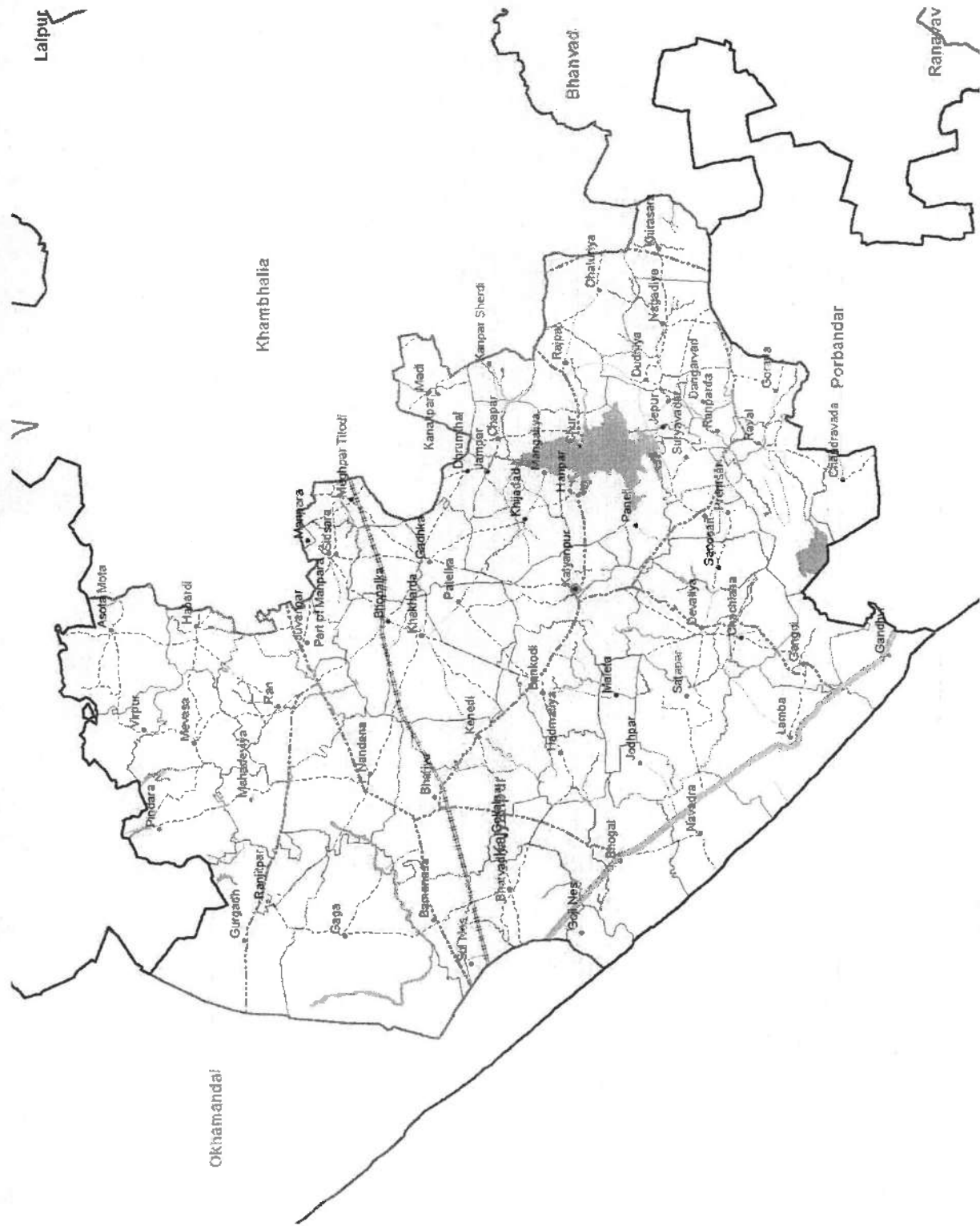
EXT. SURFACE	PROP. W.B.M.	PROP. C.C. ROAD
EXT. C.D.	PROP. B.T.	PROP. C.D.
ITEMS		
EXT. WBM		
EXT. SURFACE		
EXT. C.C.		
EXT. C.D.		HPD
CHAINAGE		
PROP. WBM		
PROP. B.T.		
PROP. C.C.		
PROP. C.D.		HPD

0/000 0/250 0/500 0/750 1/000 1/250 1/500 1/750 2/000 2/250 2/500 2/750 3/000 3/250 3/500 3/750 4/000

Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka



Legend

●	Settlement
●	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
—+—+—	Railway
—	Road
—	Expressway
—	National Highway
—	State Highway
—	District Road
—	Village Road

Data Source:



Settlement Commissioner and Land Record

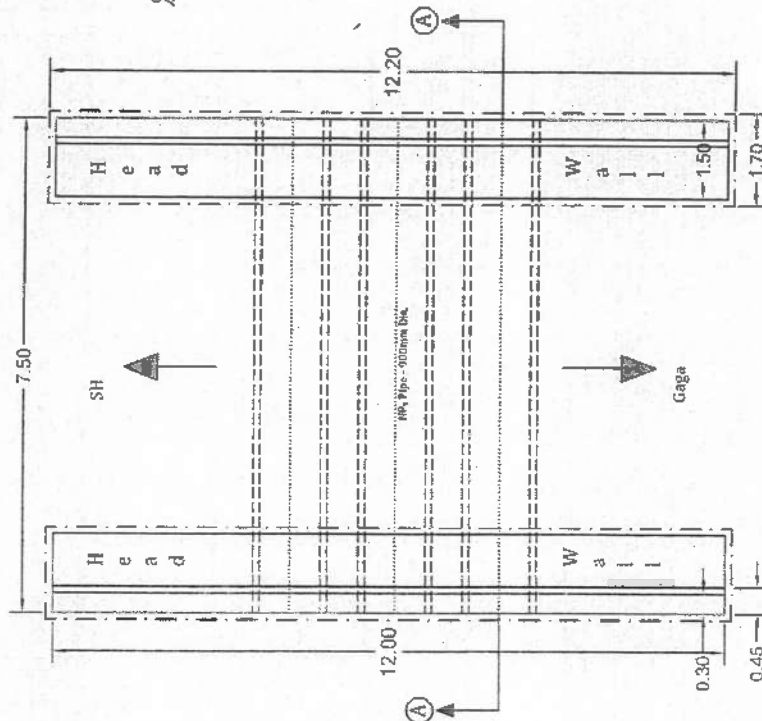
Prepared By: **BISAG**
 BILWA INSTITUTE OF SURVEYING AND GEOMATICS
 RD 2001, JALPAIGURI
 C MAN 1999/1.2

0 5 10 20 km

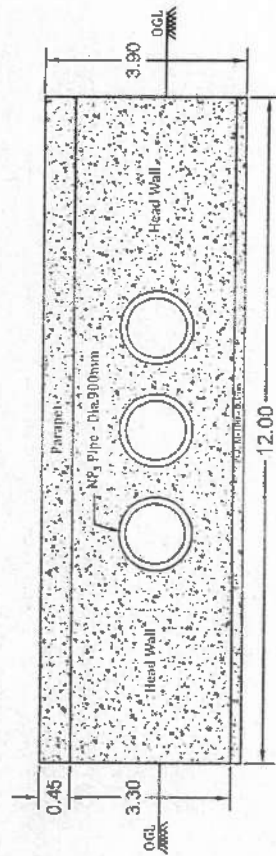
Map not to Scale

Name of Work :- Construction of Hume Pipe Drain On Gaga Approach Road Between Km.3/000 to 3/600 (MDR) Ta:-Devbhumi Dwarka Dist:- Devbhumi Dwarka

HUME PIPE DRAIN - 3 Nos. of Raw x 900mm Dia. With Length - 12m at Ch.3/030

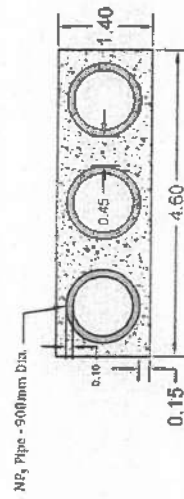


Plan of Hume Pipe Drain

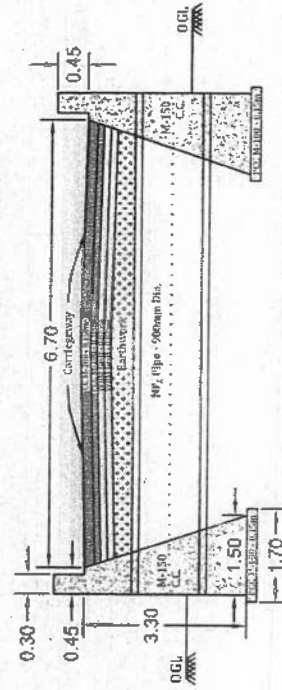


Elevation of Hume Pipe Drain


Trial Pit of Hume Pipe Drain



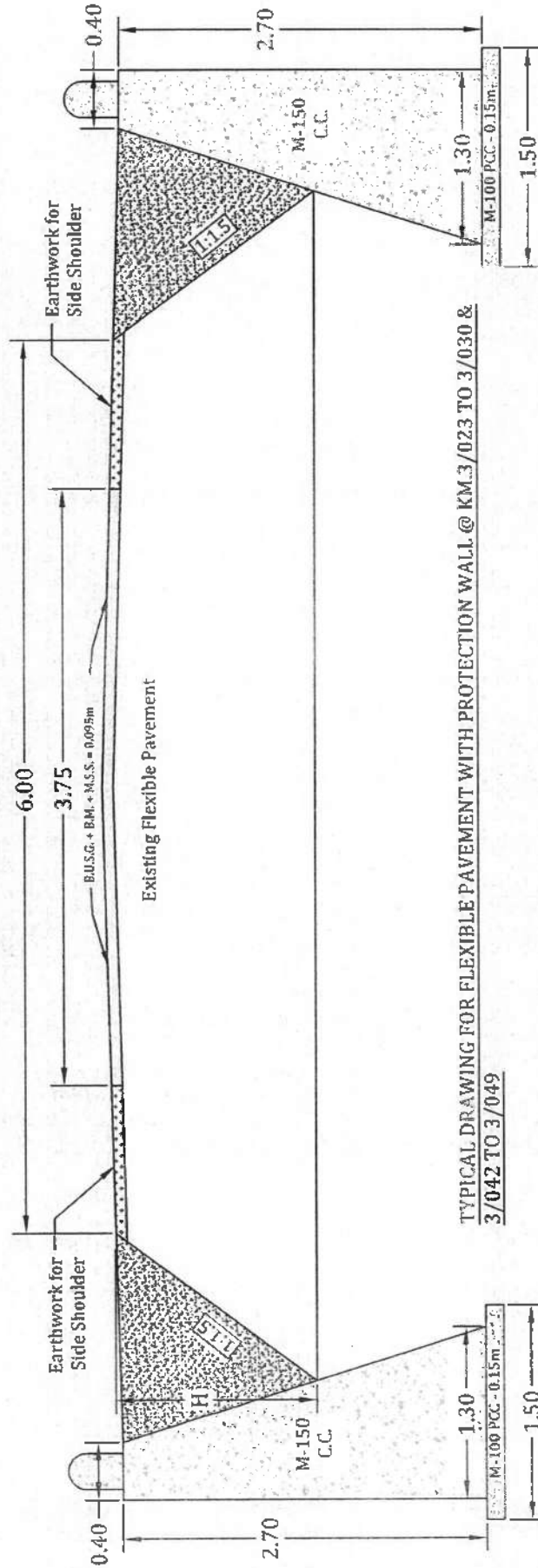
Credle Section of Hume Pipe Drain




Section :- A-A of Hume Pipe Drain

Sign:-	Sign:-
 Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Ganga Approach Road Between Km.3/000 to 3/600 (MDR) Ta:-Devbhumi Dwarka Dist:- Devbhumi Dwarka



TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ KM.3/023 TO 3/030 & 3/042 TO 3/049

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :-Construction of Hume Pipe Drain On Gaga Approach Road Between Km.3/000 to 3/600 (MDR) Ta.:-Devbhumi Dwarka Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL

Gaga Side Ch.3/600

3.60 Km

SH
Ch.0/000

36 Km




Paneli


Machine Crushed
Stone Aggregate

Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	3	Km	+	2	5.00
Machine Crushed Stone Aggregate-40 to 63mm Size	36	Km	+	2	38.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	36	Km	+	2	38.00
Stone Dust	36	Km	+	2	38.00
NP3 Pipe-R.C.C. (Upleta)	151	Km	+	2	153.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.


Assistaht Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :-Construction of Hume Pipe Drain On Gaga Approach Road Between Km.3/000 to 3/600 (MDR) Tal:-Devbhumi Dwarka Dist:-
Devbhumi Dwarka

EXT. SURFACE	PROP. W.B.M.	PROP. C.C. ROAD
EXT. C.D.	PROP. B.T.	PROP. C.D.

ITEMS	
EXT. WBM	
EXT. SURFACE	
EXT. C.C.	
EXT. C.D.	
CHAINAGE	
PROP.WBM	
PROP. B.T.	
PROP. C.C.	
PROP. C.D.	

4/000
3/750
3/500
3/250
3/000
2/750
2/500
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1/250
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0/750
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HPD

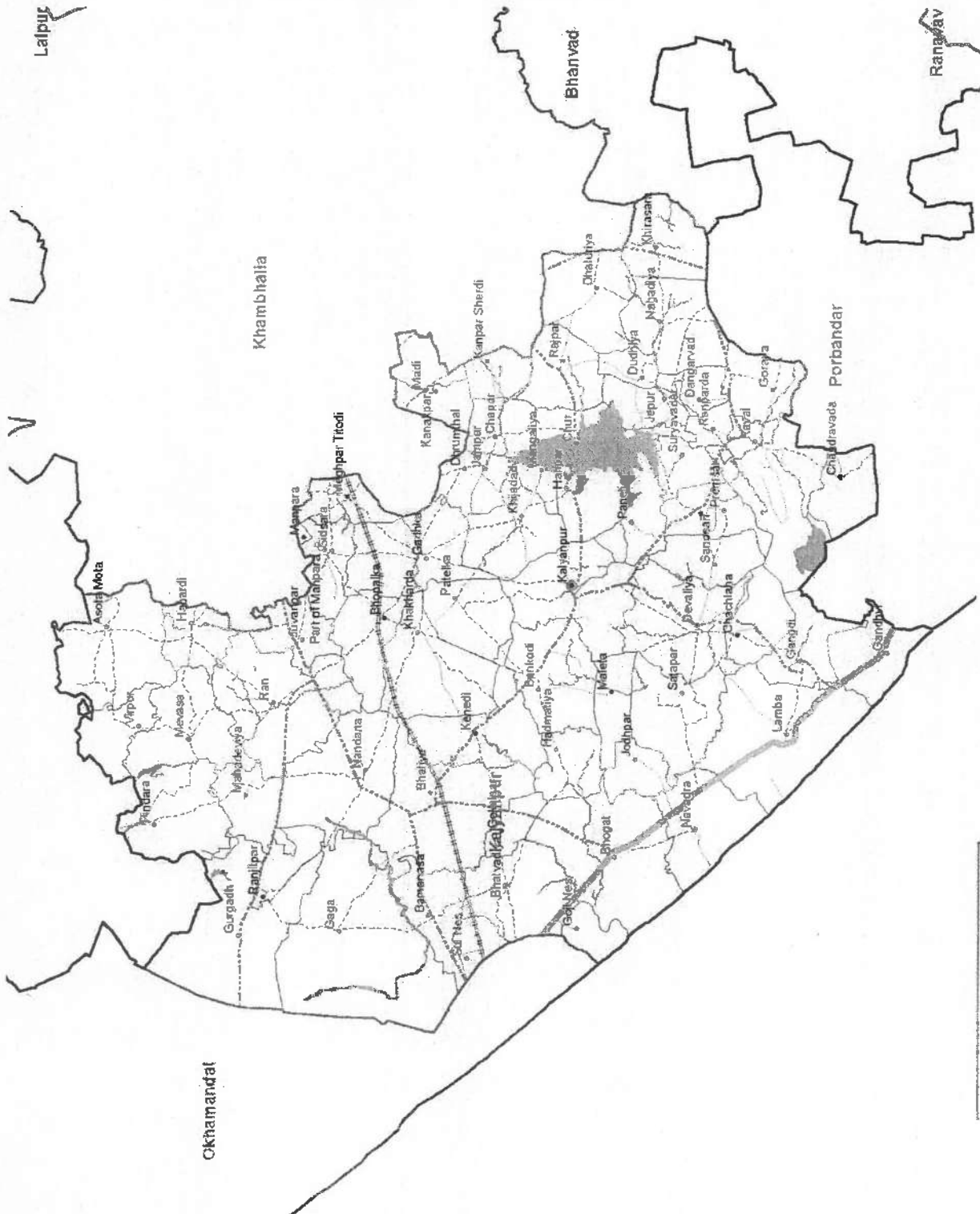
HPD

[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

District : Devbhumi Dwarakaluka : Kalyanpur



Legend

•	Settlement
•	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
—+—+—	Railway
—	Road
—	Expressway
—	National Highway
—	State Highway
—	District Road
—	Village Road

Data Source:



Settlement Commissioner and Land Record

Prepared By: **GISAG**
ISO 9001:2008
CERTIFIED
GSI/11/2006/12

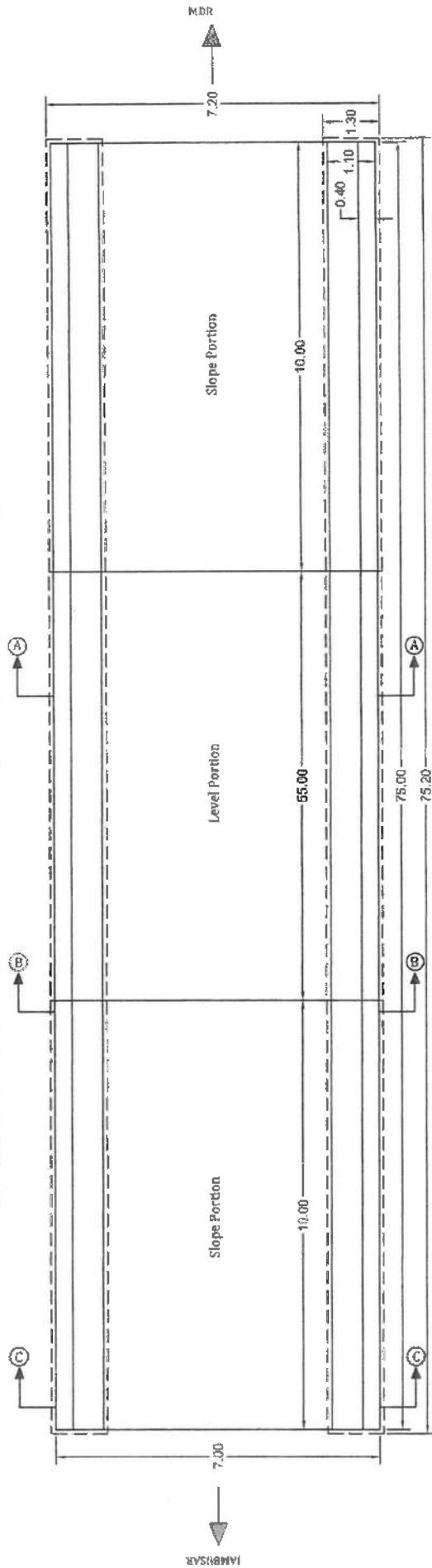


Map not to Scale

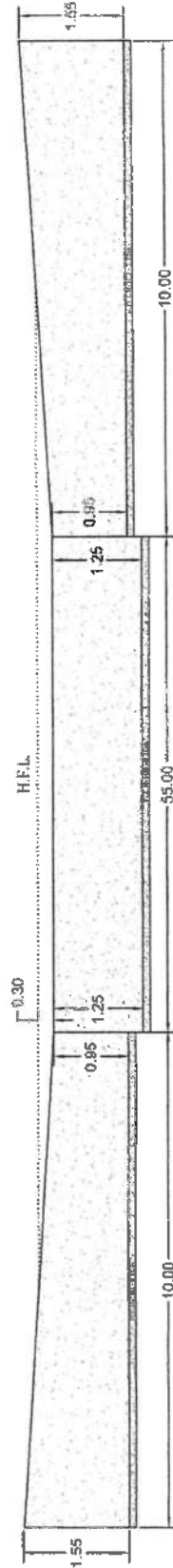
1. The map is prepared by the Survey of India, which is a government organization.
2. The map is prepared by the Survey of India, which is a government organization.
3. The map is prepared by the Survey of India, which is a government organization.

Name of Work :- Construction of Low Level Causeway On Jambusar Jodhpura To Join MDR Road Between Km.1/250 to 1/350 (VR) Tal:-Bhanvad Dist:- Devbhumi Dwarka

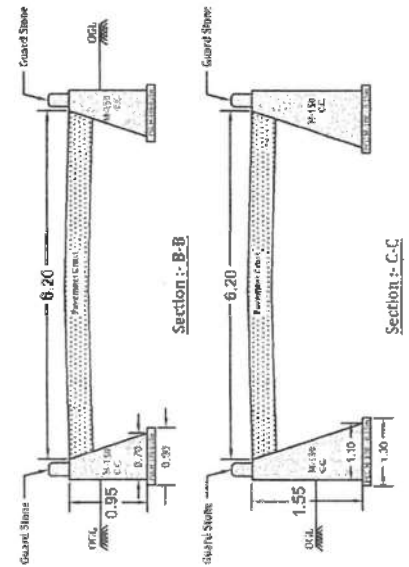
LOW LEVEL CAUSEWAY - Level Portion-55m + 2 x Slope Portion-10m with Length - 75m at Ch. TO 1/250 TO 1/350



Plan of Low Level Causeway



Elevation of Low Level Causeway



Section :- B-B

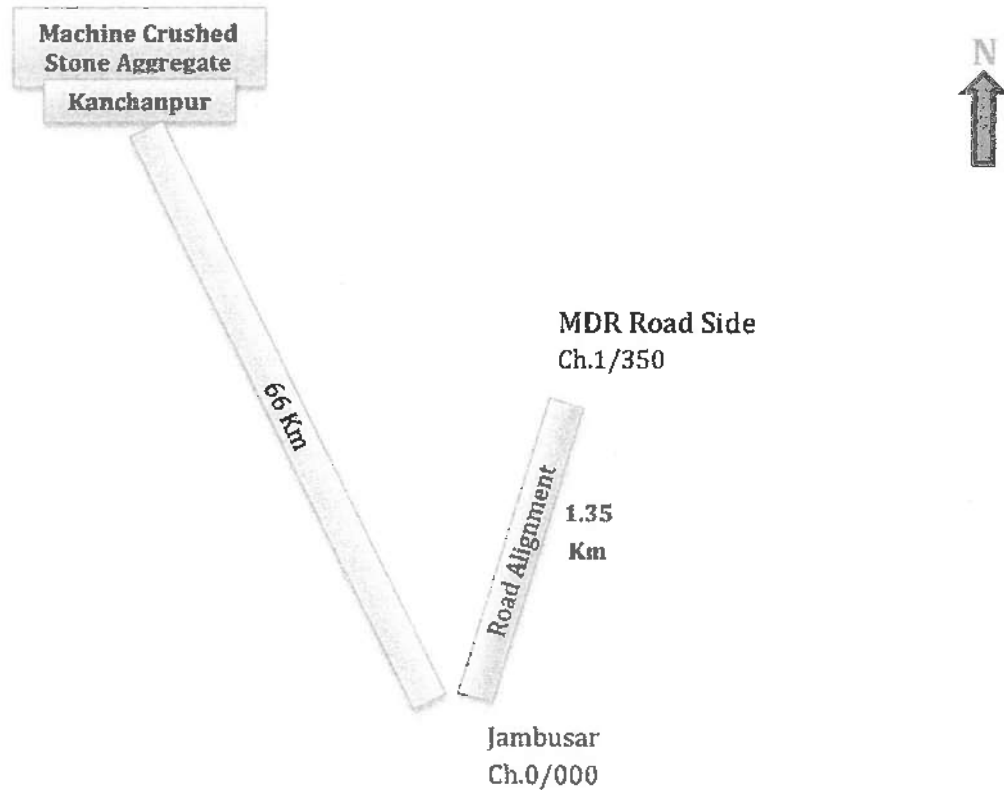
Section :- C-C

Trial Pit of Low Level Causeway

Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Bhanvad	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

Name of Work :-Construction of Low Level Causeway On Jambusar Joshipara To Join MDR Road Between Km.1/250 to 1/350 (VR) Ta.:-Bhanvad Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL




Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	1	Km	+	1	2.00
Machine Crushed Stone Aggregate-40 to 63mm Size	66	Km	+	1	67.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	66	Km	+	1	67.00
Stone Dust	66	Km	+	1	67.00
NP3 Pipe-R.C.C. (Upleta)	62	Km	+	1	63.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.


Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Bhanvad



Deputy Executive Engineer
Panchayat R & B Sub Division
Bhanvad



Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :- Construction of Low Level Causeway On Jambusar Joshipara To Join MDR Road Between Km.1/250 to 1/350 (VR) Ta.:-
Bhanvad Dist.:- Devbhumi Dwarka

EXT. SURFACE	E.R.	B.T.	PROP. W.B.M.	PROP. C.C. ROAD	
EXT. C.D.			PROP. B.T.	PROP. C.D.	
ITEMS					
EXT. WBM					
EXT. SURFACE					
EXT. C.C.			LLCW		
EXT. C.D.					
CHAINAGE					
			0/000		1/400
			0/200		1/200
			0/400		1/000
			0/600		
			0/800		
			1/000		
			1/200		
			1/400		
PROP. WBM					
PROP. B.T.					
PROP. C.C.					
PROP. C.D.					
					LLCW


Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Bhanvad


Deputy Executive Engineer
Panchayat R & B Sub Division
Bhanvad


Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

District : Devbhumi dwar Taluka : Bhanvad

For official use only



Legend

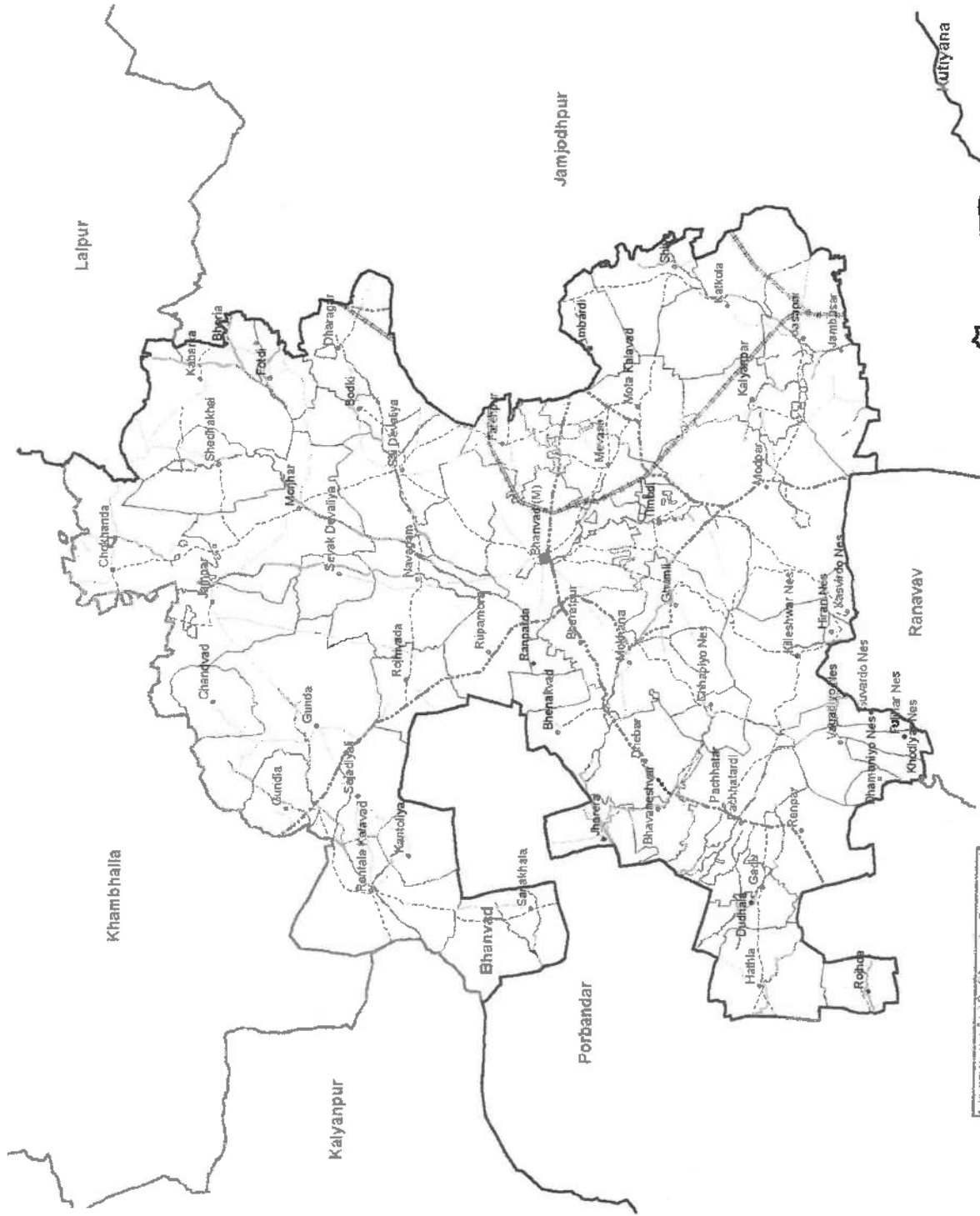
- Settlement
- Taluka Head Quarter
- Village Boundary
- Taluka Boundary
- District Boundary
- ~ River
- +—+— Railway
- Road
- Expressway
- National Highway
- State Highway
- District Road
- Village Road

Data Source:



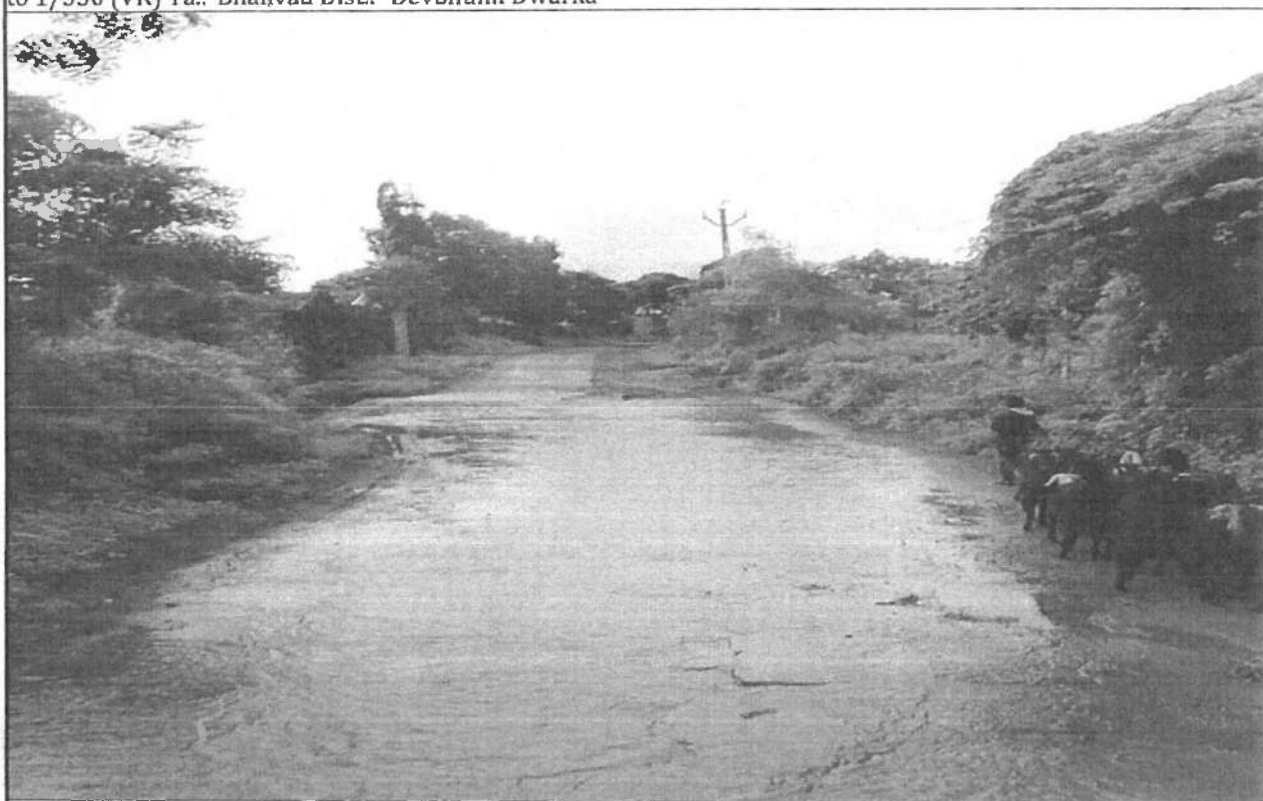
Settlement Commissioner and Land Record

Prepared By: **SIAG**
 Date: 10/01/2008
 No: 259/12/05
 Scale: 1:50,000



Map not to Scale

જાણકારી : આ મેપ સર્વેયર દ્વારા તૈયાર કરાયેલ છે. આ મેપ પર દર્શાવેલ સરહદો અને સ્થાનો સર્વેયર દ્વારા તૈયાર કરાયેલ છે. આ મેપ પર દર્શાવેલ સરહદો અને સ્થાનો સર્વેયર દ્વારા તૈયાર કરાયેલ છે.



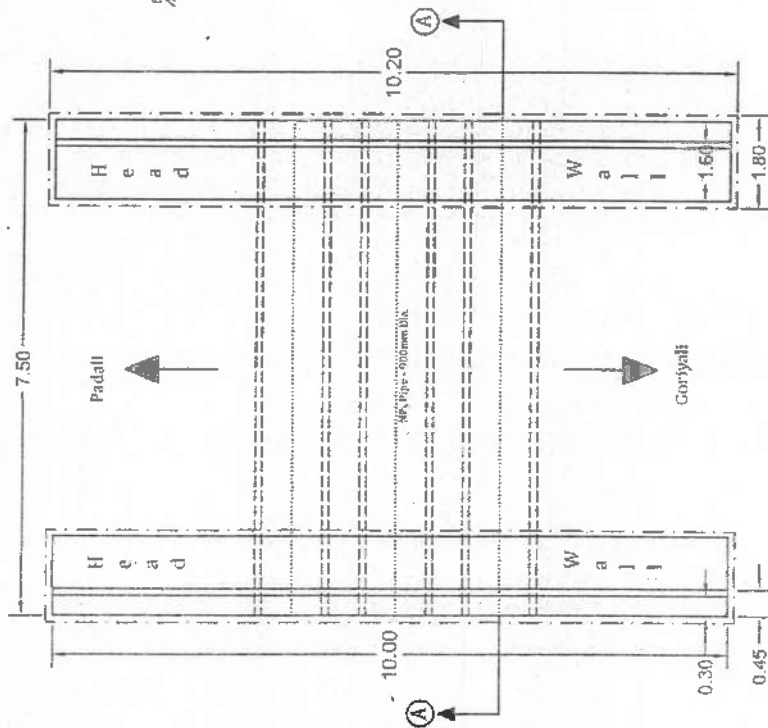
BETWEEN KM.1/250 TO 1/350 - EXT. LLCW CC DAMAGE



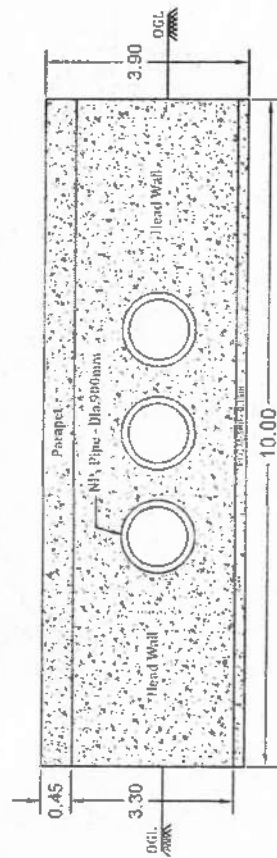
BETWEEN KM.1/250 TO 1/350 - PROP. LLCW RECONSTRUCTION

Name of Work :- Construction of Hume Pipe Drain On Padali To Goriyali Road Between Km.4/600 to 4/800 (ODR) Ta.-Dwarka Dist.- Devbhumi Dwarka

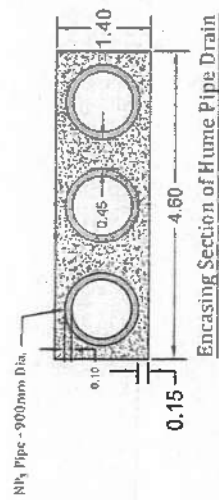
HUME PIPE DRAIN - 3 Nos. of Raw x 900mm Dia. With Length - 10m at Ch.4/600



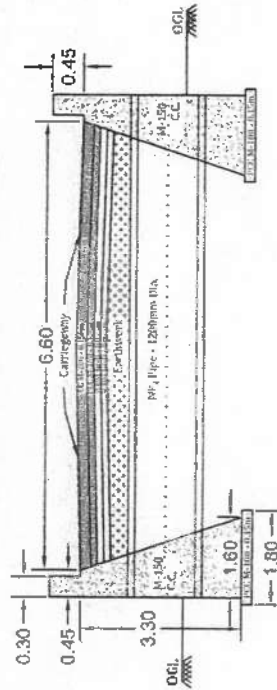
Plan of Hume Pipe Drain



Elevation of Hume Pipe Drain



Encasing Section of Hume Pipe Drain



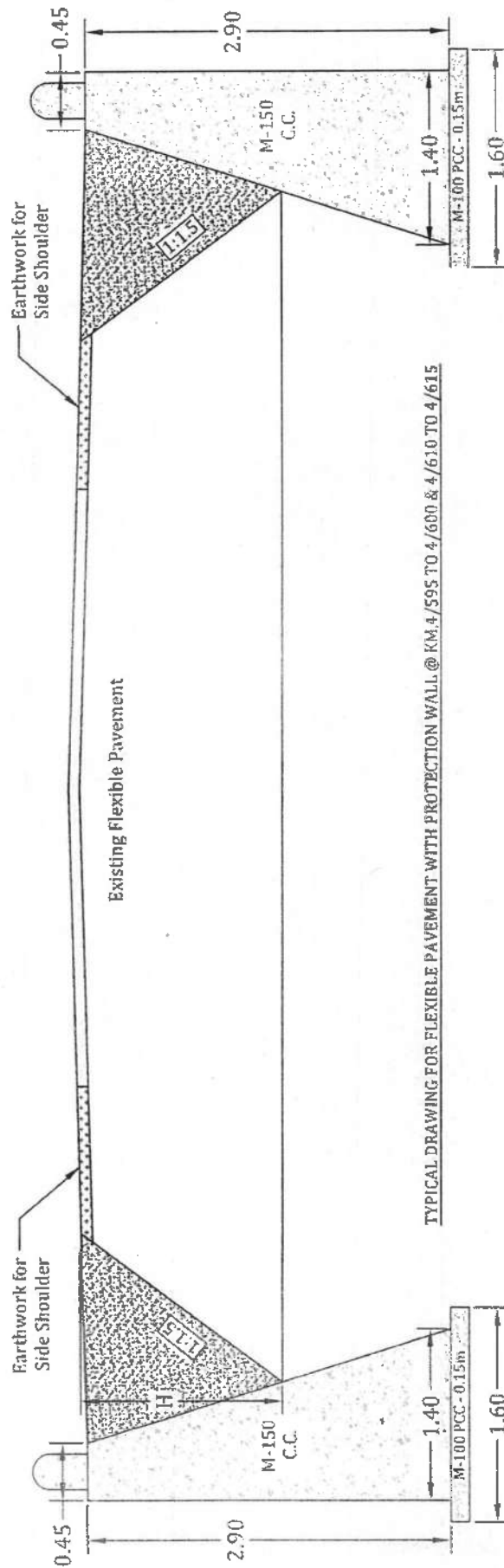
Section :- A-A of Hume Pipe Drain

ODL	Ground Level	Head
ODL	Ground Level	Head


Trial Pit of Hume Pipe Drain

Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

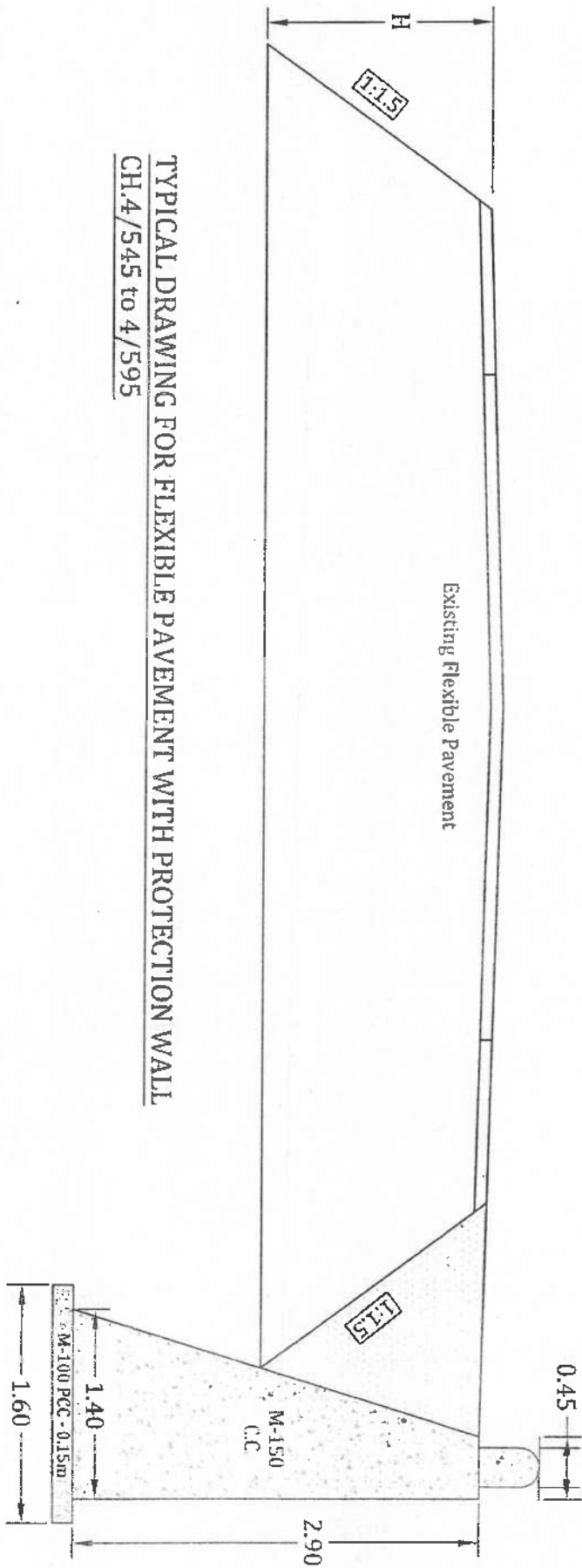
Name of Work :- Construction of Hume Pipe Drain On Padali To Goriyali Road Between Km.4/600 to 4/800 (ODR) Ta.:-Dwarka Dist.:- Devbhumi Dwarka




339

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :- Construction of Hume Pipe Drain On Padali To Goriyali Road Between Km.4/600 to 4/800 (ODR) Ta.-Dwarka Dist.- Devbhumi Dwarka

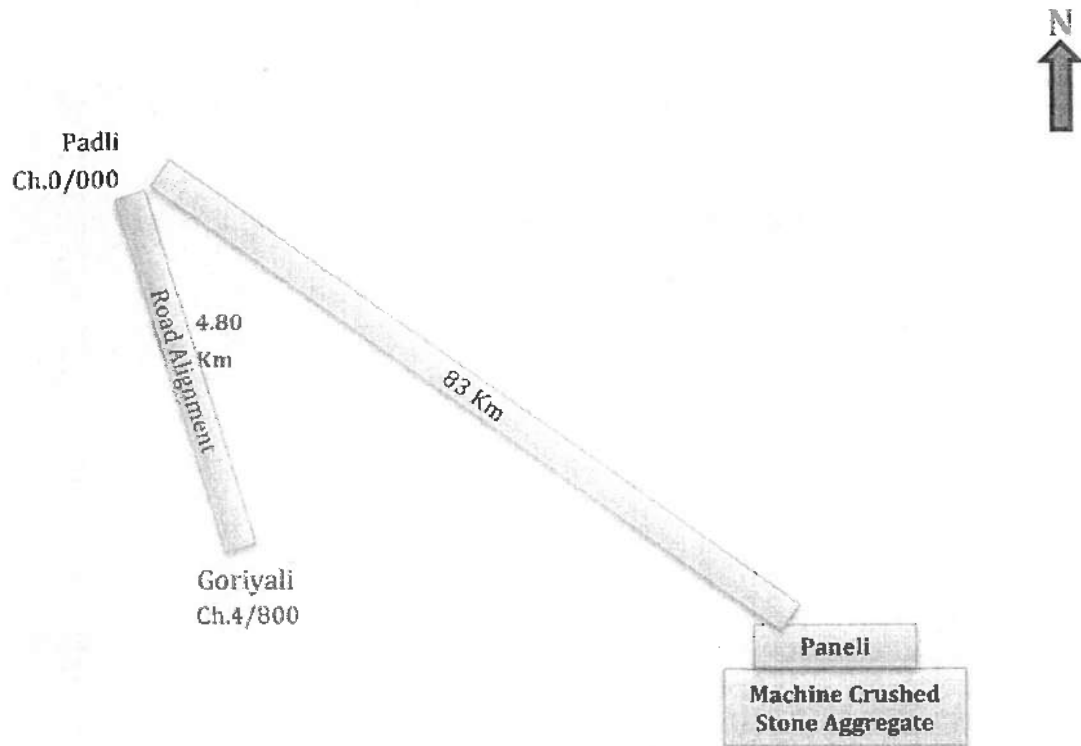


TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL
CH.4/545 to 4/595

Sign:-		Sign:-	
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division Devbhumi Dwarka	

Name of Work :-Construction of Hume Pipe Drain On Padali To Goriyali Road Between Km.4/600 to 4/800 (ODR) Ta.:-Dwarka Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	1	Km	+	3	4.00
Machine Crushed Stone Aggregate-40 to 63mm Size	83	Km	+	3	86.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	83	Km	+	3	86.00
Stone Dust	83	Km	+	3	86.00
NP3 Pipe-R.C.C. (Upleta)	188	Km	+	3	191.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.

[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Padali To Goriyali Road Between Km.4/600 to 4/800 (ODR) Ta.: Dwarka Dist.: Devbhumi Dwarka

EXT. SURFACE	B.T.	PROP. W.B.M.	PROP. C.C. ROAD
EXT. C.D.		PROP. B.T.	PROP. C.D.
ITEMS			
EXT. WBM			
EXT. SURFACE			
EXT. C.C.			
EXT. C.D.			
CHAINAGE			
PROP. WBM			
PROP. B.T.			
PROP. C.C.			
PROP. C.D.			
			HPD

[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka














Okhamandal

Khambhalia

Bhavad

Runaway

Legend

-  Settlement
 Tatuka Head Quarter
 Village Boundary
 Tatuka Boundary
 District Boundary
 River
 Railway
 Road
 Expressway
 National Highway
 State Highway
 District Road
 Village Road

Data Source:



Settlement commissioner and Land Record

As published

Qing
 950 9601-2008
 ISO 27001:2005
 CMMI Level-3

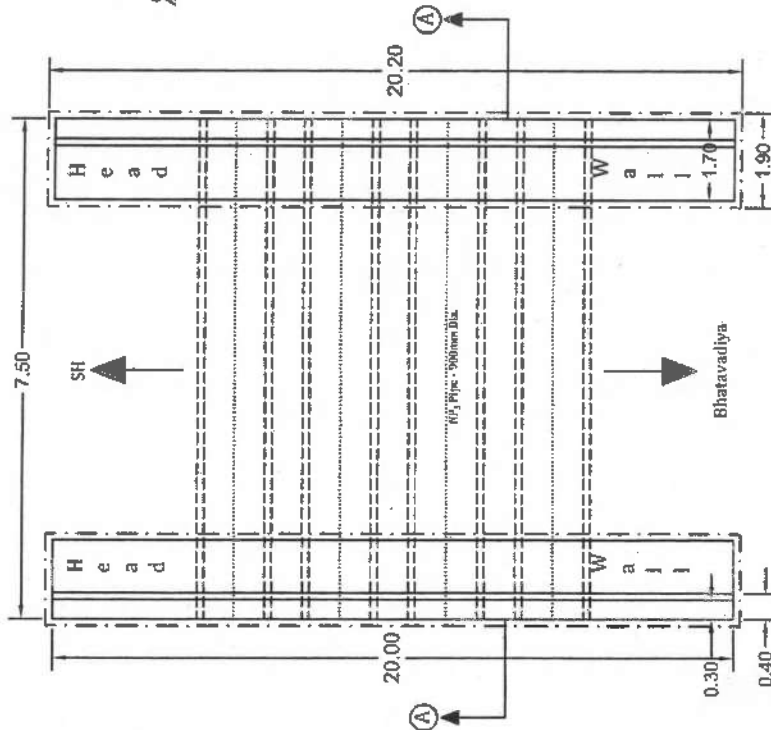


Map not to Scale

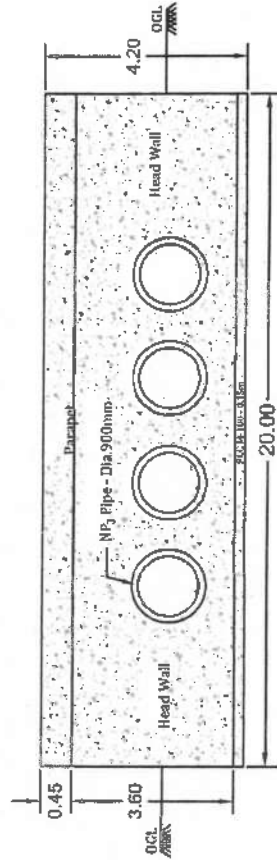
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Name of Work :- Construction of Hume Pipe Drain On Bhatavadiya To Gokalpar Road Between Km.2/500 to 2/700
(ODR) Ta.-Kalyanpur Dist.- Devbhumi Dwarka

HUME PIPE DRAIN - 4 Nos. of Raw x 900mm Dia. With Length - 20m at Ch.2/500 - 2/700

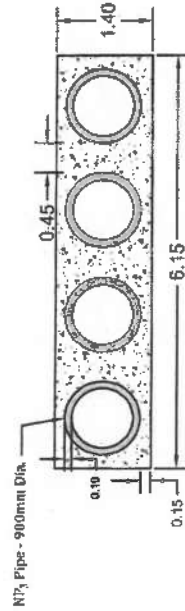


Plan of Hume Pipe Drain

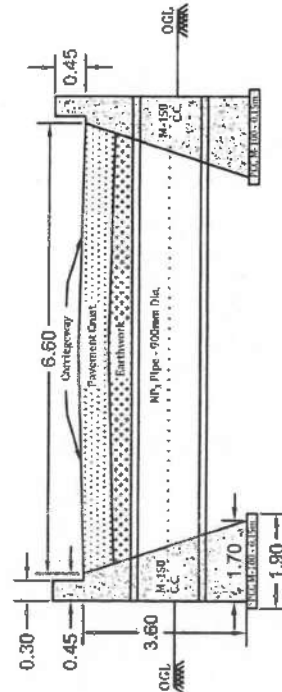


Elevation of Hume Pipe Drain

Trial Pit of Hume Pipe Drain



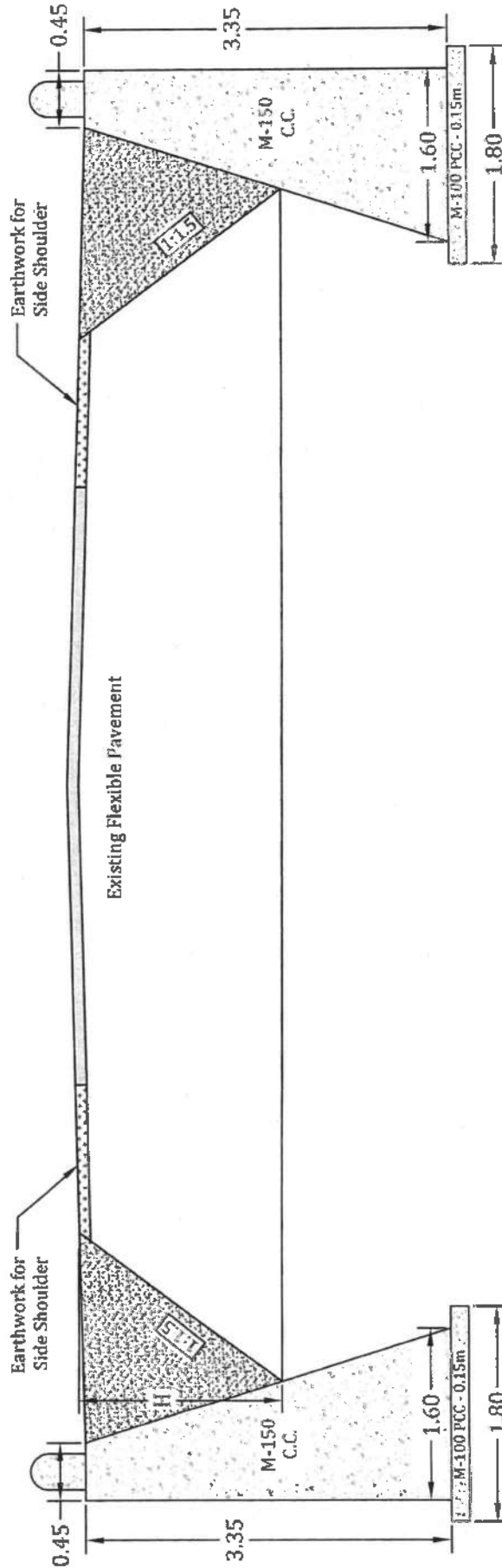
Encased Section of Hume Pipe Drain



Section :- A-A of Hume Pipe Drain

Sign:-	Sign:-
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka	Executive Engineer Panchayat R & B Division Devbhumi Dwarka

Name of Work :- Construction of Hume Pipe Drain On Bhatawadiya To Gokalpar Road Between Km.2/500 to 2/700
(ODR) Ta.:-Kalyanpur Dist.:- Devbhumi Dwarka

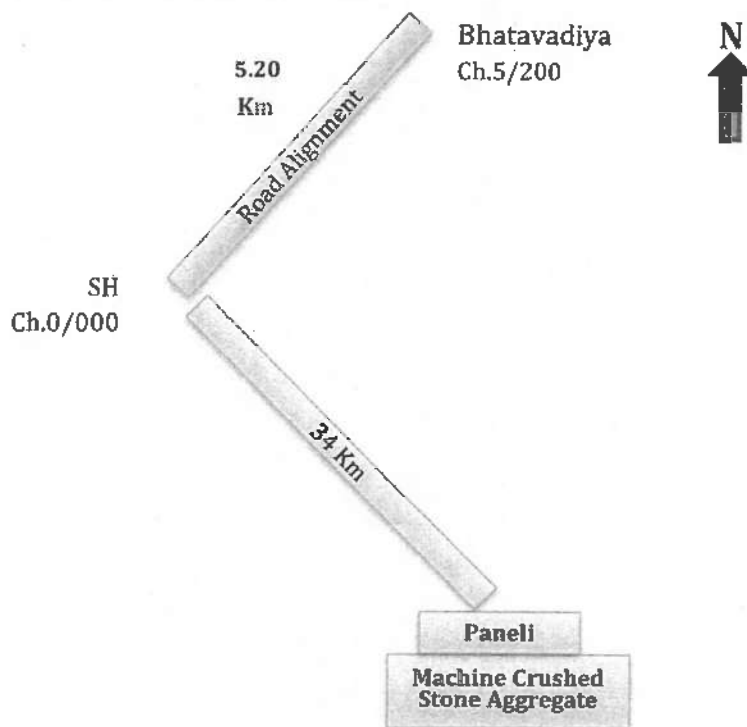


TYPICAL DRAWING FOR FLEXIBLE PAVEMENT WITH PROTECTION WALL @ KM.2/500 to 2/700

Sign:-	<i>[Signature]</i>	Sign:-	<i>[Signature]</i>
Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka		Executive Engineer Panchayat R & B Division <i>[Signature]</i> Devbhumi Dwarka	

Name of Work :-Construction of Hume Pipe Drain On Bhatavadiya To Gokalpar Road Between Km.2/500 to 2/700 (ODR) Ta.:-Kalyanpur Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	15	Km	+	3	18.00
Machine Crushed Stone Aggregate-40 to 63mm Size	34	Km	+	3	37.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	34	Km	+	3	37.00
Stone Dust	34	Km	+	3	37.00
NP3 Pipe-R.C.C. (Upleta)	138	Km	+	3	141.00

CERTIFICATE :-


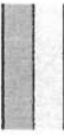
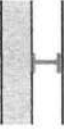
It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.

Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

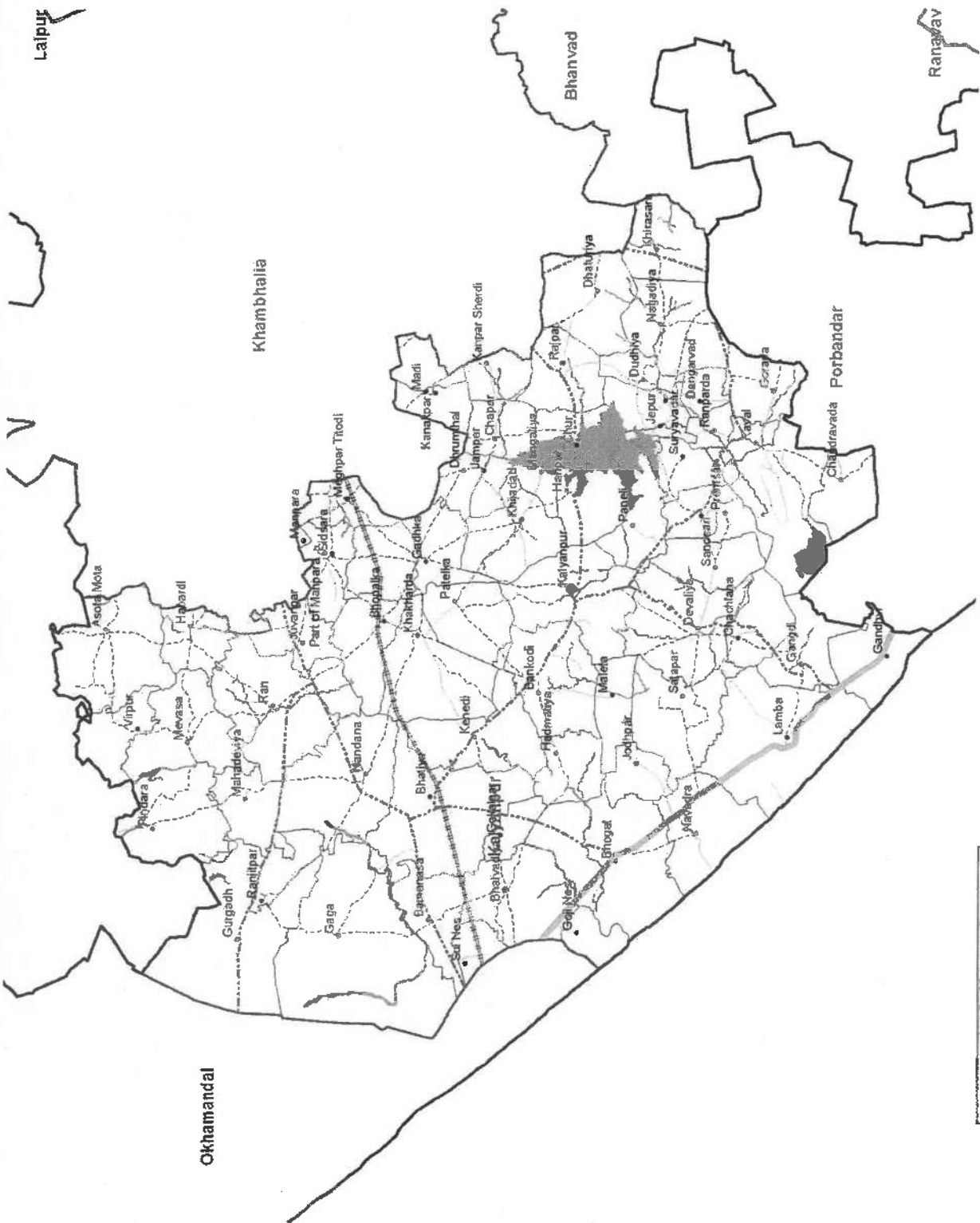
Name of Work :- Construction of Hume Pipe Drain On Bhatavadiya To Gokalpar Road Between Km.2/500 to 2/700 (ODR) Tal:-Kalyanpur Dist:-
Devbhumi Dwarka

EXT. SURFACE EXT. C.D.		PROP. W.B.M. PROP. B.T.		PROP. C.C. ROAD PROP. C.D.	
ITEMS					
EXT. WBM					
EXT. SURFACE					
EXT. C.C.					
EXT. C.D.		HPD			
CHAINAGE	0/000	0/500	1/000	1/500	2/000
					2/500
					3/000
					3/500
					4/000
					4/500
					5/000
					5/200
PROP. WBM					
PROP. B.T.					
PROP. C.C.		HPD			
PROP. C.D.					

Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka



Legend

- Settlement
- Taluka Head Quarter
- Village Boundary
- Taluka Boundary
- District Boundary
- ~ River
- Railway
- Road
- Expressway
- National Highway
- State Highway
- District Road
- Village Road

Date Source:



Settlement Commissioner and Land Record

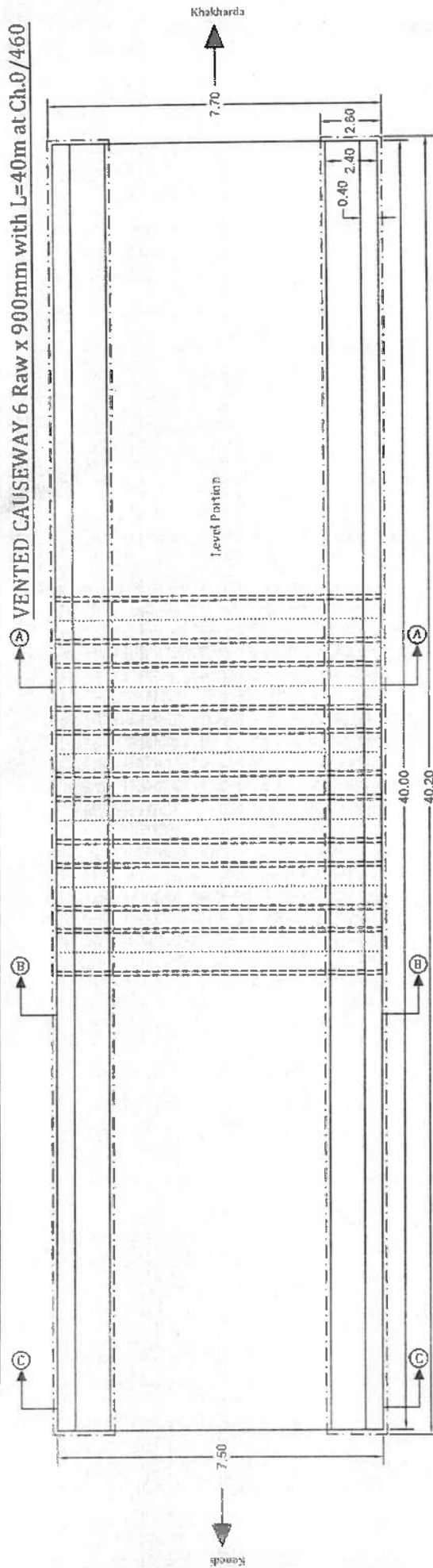
Prepared By: **BISAG**
ISO 9001:2005
ISO 27001:2005
CMMI Level-2

1. આ નકશો જિલ્લાના સરકારી માલ છે અને તેનો ઉપયોગ માત્ર સરકારી હેતુઓ માટે જ કરવામાં આવવો જોઈએ.
2. આ નકશો કોઈપણ અન્ય હેતુ માટે વાપરવામાં આવતો નથી.
3. આ નકશો કોઈપણ અન્ય હેતુ માટે વાપરવામાં આવતો નથી.

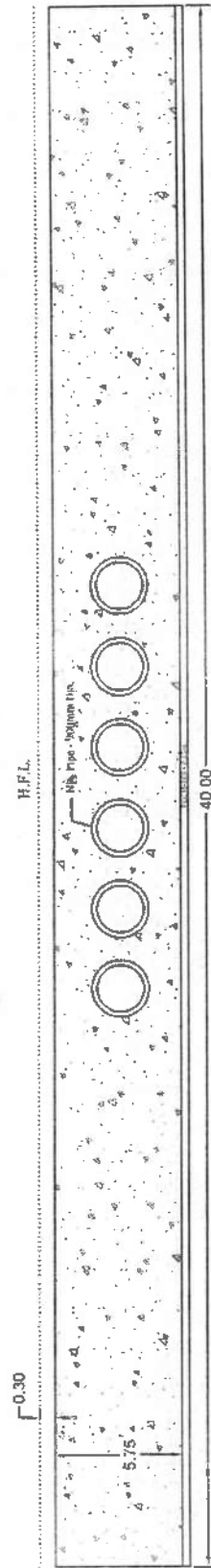
Map not to Scale

Name of Work :- Construction of High Level Vented Causeway On Kenedi To Khakharra Road Between Km.0/400 to 0/600 [VR] Ta. - Kalyanpur Dist. - Devbhumi Dwarka

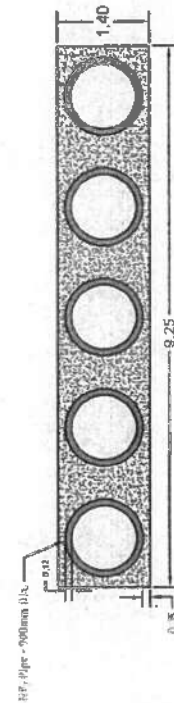
VENTED CAUSEWAY 6 Row x 900mm with L=40m at Ch.0/460



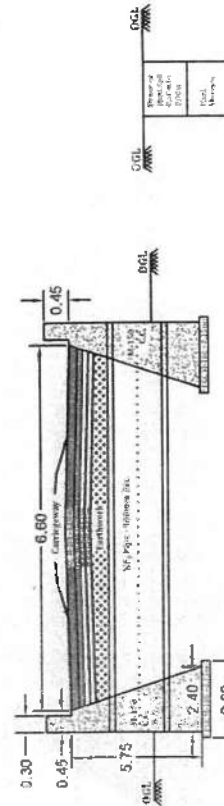
Plan of Vented Causeway



Elevation of Vented Causeway



Excising Section For Vented Causeway



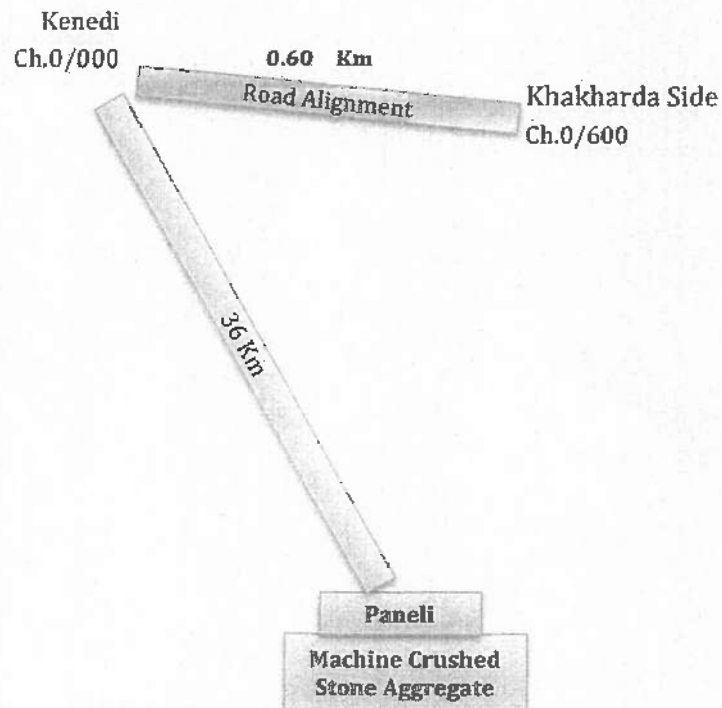
Section - A-A of Home Pipe Drain

Trial Pit of Vented Causeway

Sign:-	Sign:-
<p>Deputy Executive Engineer Panchayat R & B Sub Division Devbhumi Dwarka</p>	<p>Executive Engineer Panchayat R & B Division Devbhumi Dwarka</p>

Name of Work :-Construction of High Level Vented Causeway On Kenedi To Khakharra Road Between Km.0/400 to 0/600 (VR) Ta.:-Kalyanpur Dist.:- Devbhumi Dwarka


LEAD CHART OF QUARRY MATERIAL




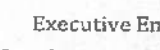
Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	4	Km	+	1	5.00
Machine Crushed Stone Aggregate-40 to 63mm Size	23	Km	+	1	24.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	23	Km	+	1	24.00
Stone Dust	23	Km	+	1	24.00
NP3 Pipe-R.C.C. (Upleta)	138	Km	+	1	139.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.


Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka


Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :-Construction of High Level Vented Causeway On Kenedi To Khakharra Road Between Km.0/400 to 0/600 (VR) Ta:-Kalyanpur
Dist.:- Devbhumi Dwarka

	EXT. SURFACE	EXT. C.D.	ITEMS	EXT. WBM	EXT. SURFACE	EXT. C.C.	EXT. C.D.	CHAINAGE	PROP.WBM	PROP.B.T.	PROP.C.C.	PROP.C.D.	VCW
	E.R. B.T.							0/000					
								0/250					
								0/500					
								0/750					
								1/000					
								1/250					
								1/500					
								1/750					
								2/000					
								2/250					
								2/500					
								2/750					
								3/000					
								3/250					
								3/500					
								3/750					
								4/000					














Assistant Engineer / A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Laipus

Legend

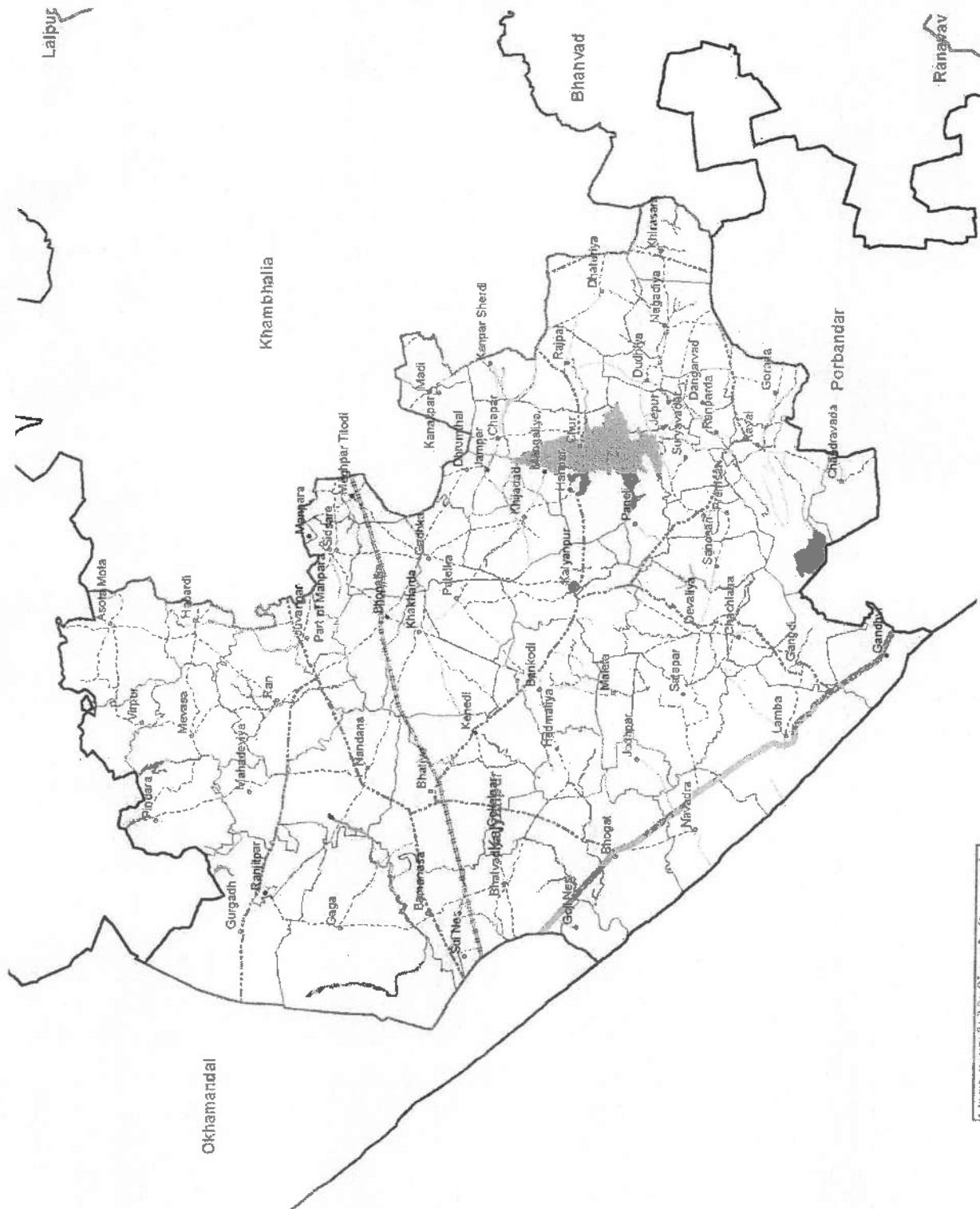
-  Settlement
 Taluka Head Quarter
 Village Boundary
 Taluka Boundary
 District Boundary
 River
 Railway
 Road
 Expressway
 National Highway
 State Highway
 District Road
 Village Road

Data Source:



Settlement commissioner and Land Record

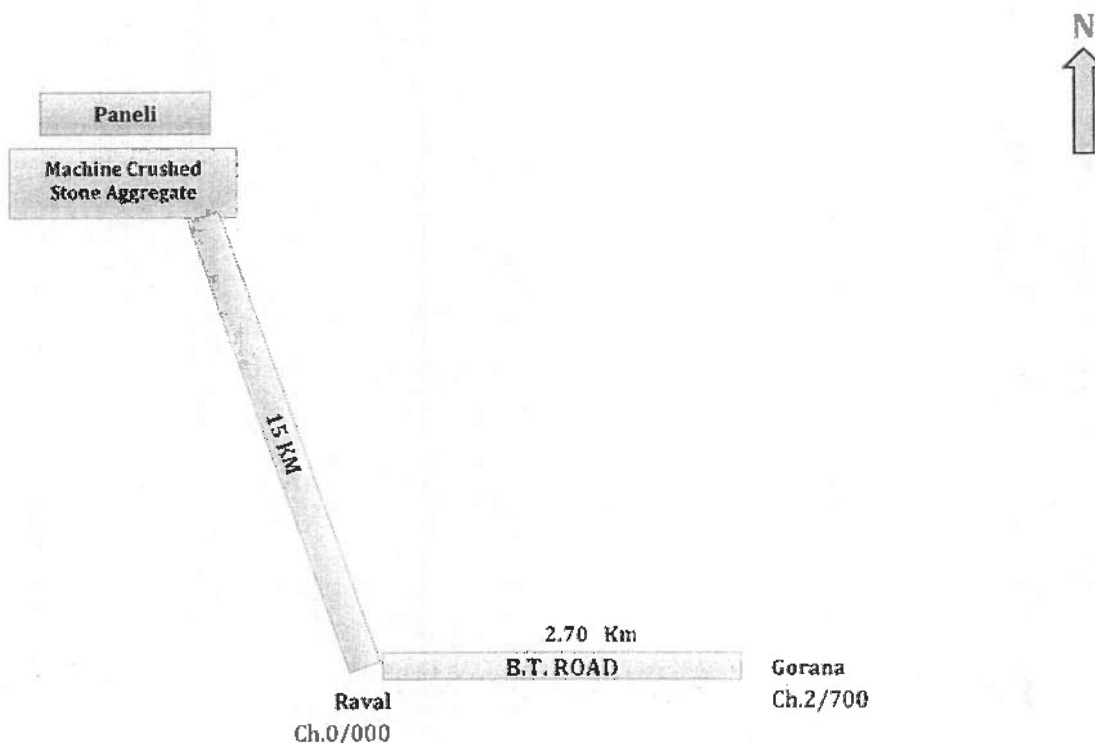
Prepared By: **RIAG**
ISO 9001:2008
ISO 27001:2005
CMMI Level-3

[illegible]

Map not to Scale

Name of Work :-Construction of Box Culvert on Raval To Gorana Road (VR) Km.2/600 to 2/700 Ta:-
Kalyanpur Dist:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	1	Km	+	2	3.00
Machine Crushed Stone Aggregate-40 to 63mm Size	15	Km	+	2	17.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	15	Km	+	2	17.00
Stone Dust	15	Km	+	2	17.00

CERTIFICATE :-


It is to be certify that the type of materials proposed to be used for the construction of this project & their respected leads are mentioned in this quarry chart. Lead have been verified by me personally & the quarry chart is in accordance with the availability of materials in the nearby vicinity.


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :- Construction of Box Culvert on Raval To Gorana Road (VR) Km.2/600 to 2/700 Ta.:- Kalyanpur Dist.:- Devbhumi Dwaraka

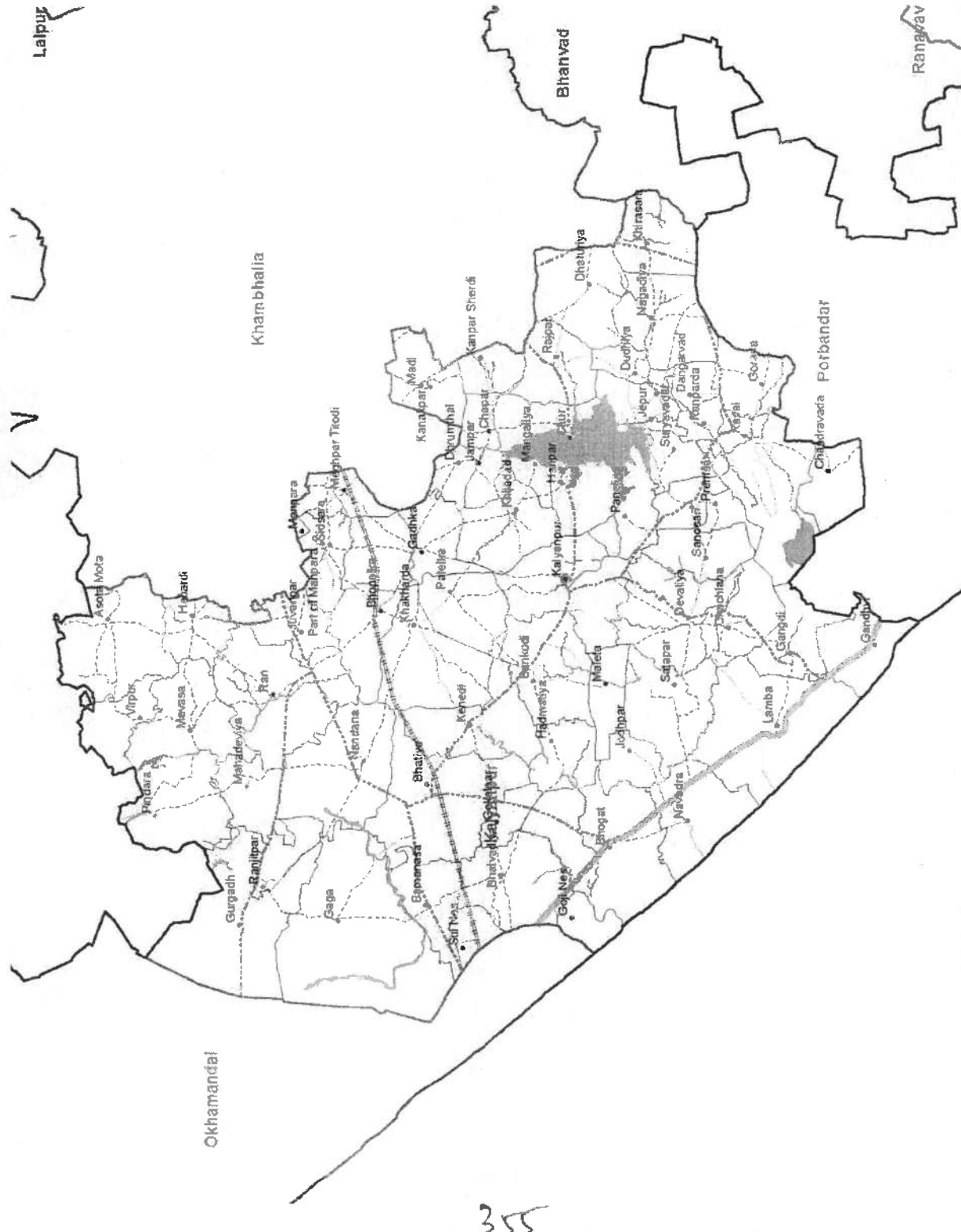
[illegible]


Assistant Engineer / A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka


Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

**Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka**

District : Devbhumi DwarTakuka : Kalyanpur



Legend

•	Settlement
•	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
—+—+—	Railway
—	Road
—	Expressway
—	National Highway
—	State Highway
—	District Road
—	Village Road

Data Source:



Settlement commissionerate and Land Record

Prepared By:



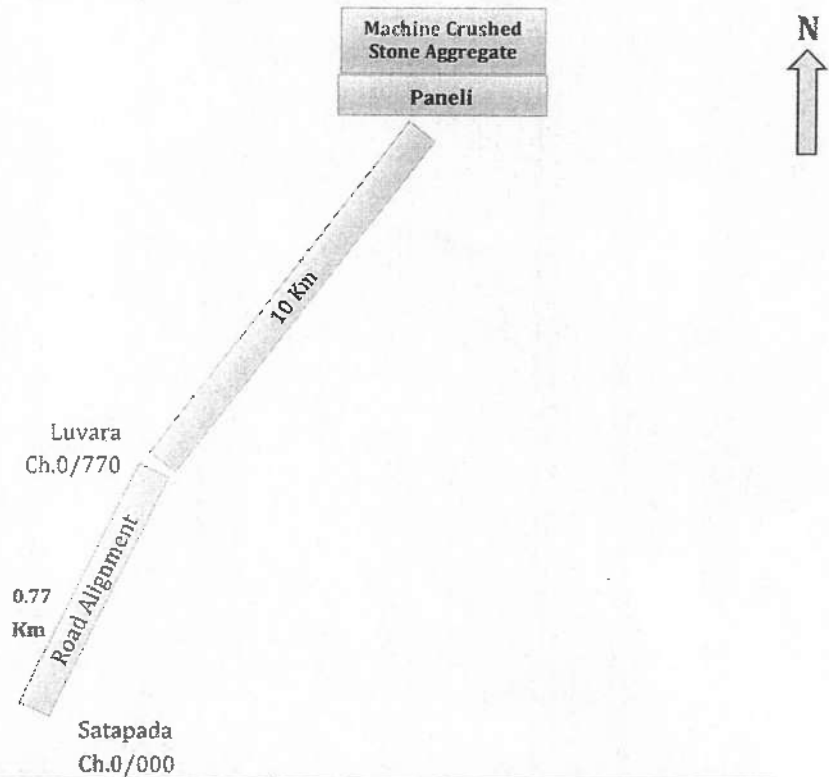
Map not to Scale

1. The map is not to scale and is for reference only. It is not to be used for any purpose other than for reference. 2. The map is not to scale and is for reference only. It is not to be used for any purpose other than for reference. 3. The map is not to scale and is for reference only. It is not to be used for any purpose other than for reference.

355

Name of Work :- Construction of Skew Slab Drain On Premsar To Tankariya Road (VR) Between Km.0/700 to 0/900 Ta.:- Kalyanpur Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum / Binding Material	3	Km	+	1	4.00
Machine Crushed Stone Aggregate-40 to 63mm Size	10	Km	+	1	11.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	10	Km	+	1	11.00
Stone Dust	10	Km	+	1	11.00
NP3 Pipe-R.C.C. (Upleta)	119	Km	+	1	120.00

CERTIFICATE :-

It is to be certify that the type of materials used to construct this road project and its respected leads are mentioned in this quarry chart. Leads have been verified by me. The shown quarry chart is as per the availability of materials in nearby area of proposed alignment.

[Signature]
Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

[Signature]
Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

Name of Work :-Construction of Skew Slab Drain On Premsar To Tankariya Road (VR) Between Km.0/700 to 0/900 Ta.:-
Kalyanpur Dist.:- Devbhumi Dwarka

EXT. SURFACE		PROP. W.B.M.	PROP. C.C. ROAD
EXT. C.D.		PROP. B.T.	PROP. C.D.

ITEMS	
EXT. WBM	
EXT. SURFACE	
EXT. C.C.	LLCW
EXT. C.D.	
CHAINAGE	0000 0/200 0/400 0/600 0800/0
PROP. WBM	
PROP. B.T.	
PROP. C.C.	
PROP. C.D.	SD

Assistant Engineer/A.A.E.
Panchayat R & B Sub Division
Devbhumi Dwarka

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka



Legend

•	Settlement
•	Taluka Head Quarter
□	Village Boundary
□	Taluka Boundary
□	District Boundary
~	River
==	Railway
==	Road
==	Expressway
==	National Highway
==	State Highway
==	District Road
==	Village Road

Data Source:



Settlement Commissioner and Land Record

Prepared By: **BISAG**
 BPO 2001/2008
 BPO 2001/2008
 CMMI Level 3

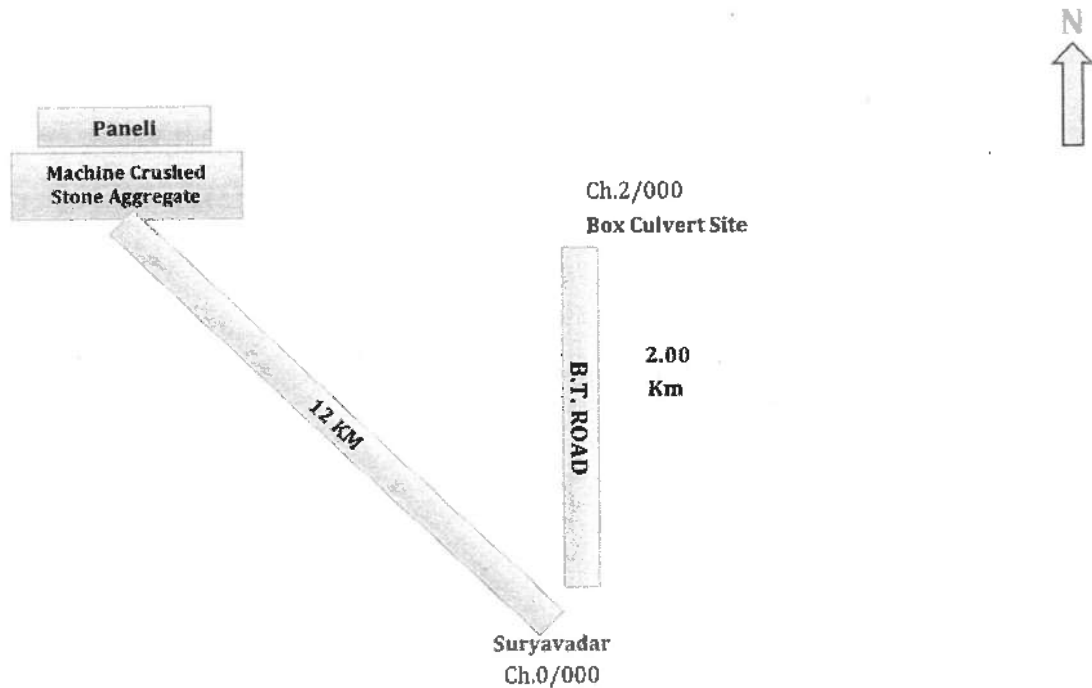
0 5 10 20 km

Map not to Scale

यह नक्शा सर्वेक्षण विभाग द्वारा तैयार किया गया है। नक्शा तैयार करने में सर्वेक्षण विभाग के अधिकारी शामिल थे। नक्शा तैयार करने में सर्वेक्षण विभाग के अधिकारी शामिल थे। नक्शा तैयार करने में सर्वेक्षण विभाग के अधिकारी शामिल थे।

Name of Work :-Construction of Box Culvert on Suryavadar To Sanidam Road Between Km.1/800 to 2/000
(MDR) Ta.:- Kalyanpur Dist.:- Devbhumi Dwarka

LEAD CHART OF QUARRY MATERIAL



Material Type				Avg. Lead (Km)	Total Lead (Km)
Quarry Spall / Murrum/Binding Material	12	Km	+	1	13.00
Machine Crushed Stone Aggregate-40 to 63mm Size	12	Km	+	1	13.00
Machine Crushed Stone Aggregate-10 to 20 mm Size	12	Km	+	1	13.00
Stone Dust	12	Km	+	1	13.00
NP3 Pipe-R.C.C. (Upleta)	116	Km	+	1	117.00

CERTIFICATE :-

It is to be certify that the type of materials proposed to be used for the construction of this project & their respected leads are mentioned in this quarry chart. Lead have been verified by me personally & the quarry chart is in accordance with the availability of materials in the nearby vicinity.

Deputy Executive Engineer
Panchayat R & B Sub Division
Devbhumi Dwarka

Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka

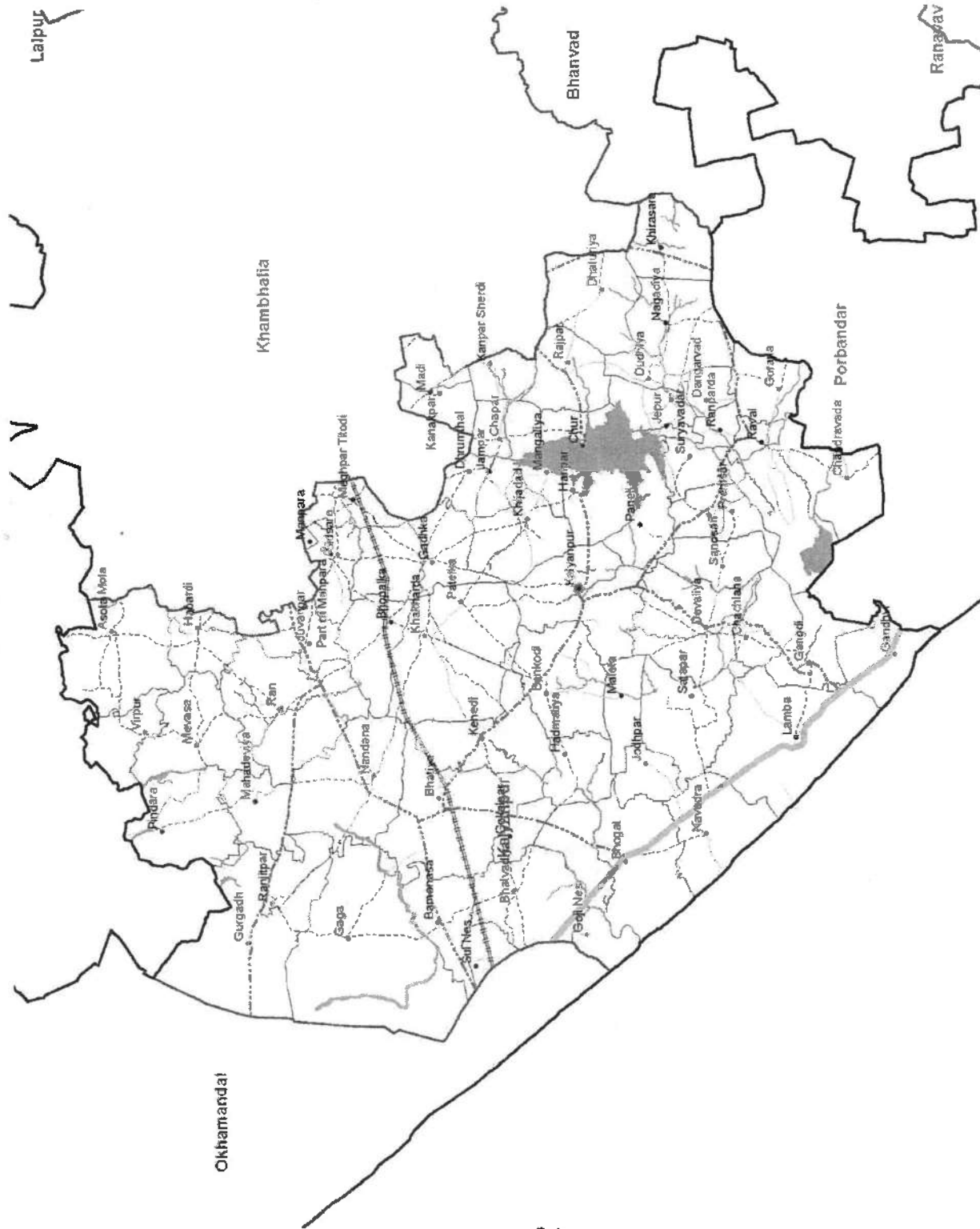
359

A diagram of a cantilever beam. It is represented by a horizontal line. On the left end, there is a vertical line representing a wall, with a small rectangle indicating the beam is fixed into it. The right end of the beam is free.

PROP. C.D.

**Executive Engineer
Panchayat R & B Division
Devbhumi Dwarka**

District : Devbhumi Dwar Taluka : Kalyanpur



Legend

- Settlement
- Taluka Head Quarter
- Village Boundary
- Taluka Boundary
- District Boundary
- ~ River
- +—+— Railway
- Road
- Expressway
- National Highway
- State Highway
- District Road
- Village Road

Data Source:



Settlement Commissioner and Land Record

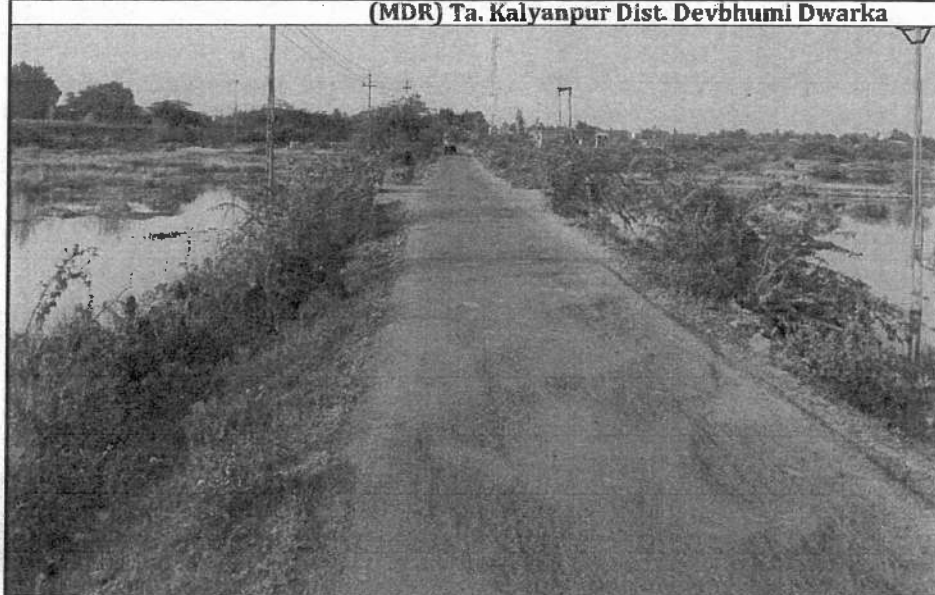


Prepared By: **BISAG**
 NO. 2001/2004
 Date: 10/10/2004
 CMH Level-2

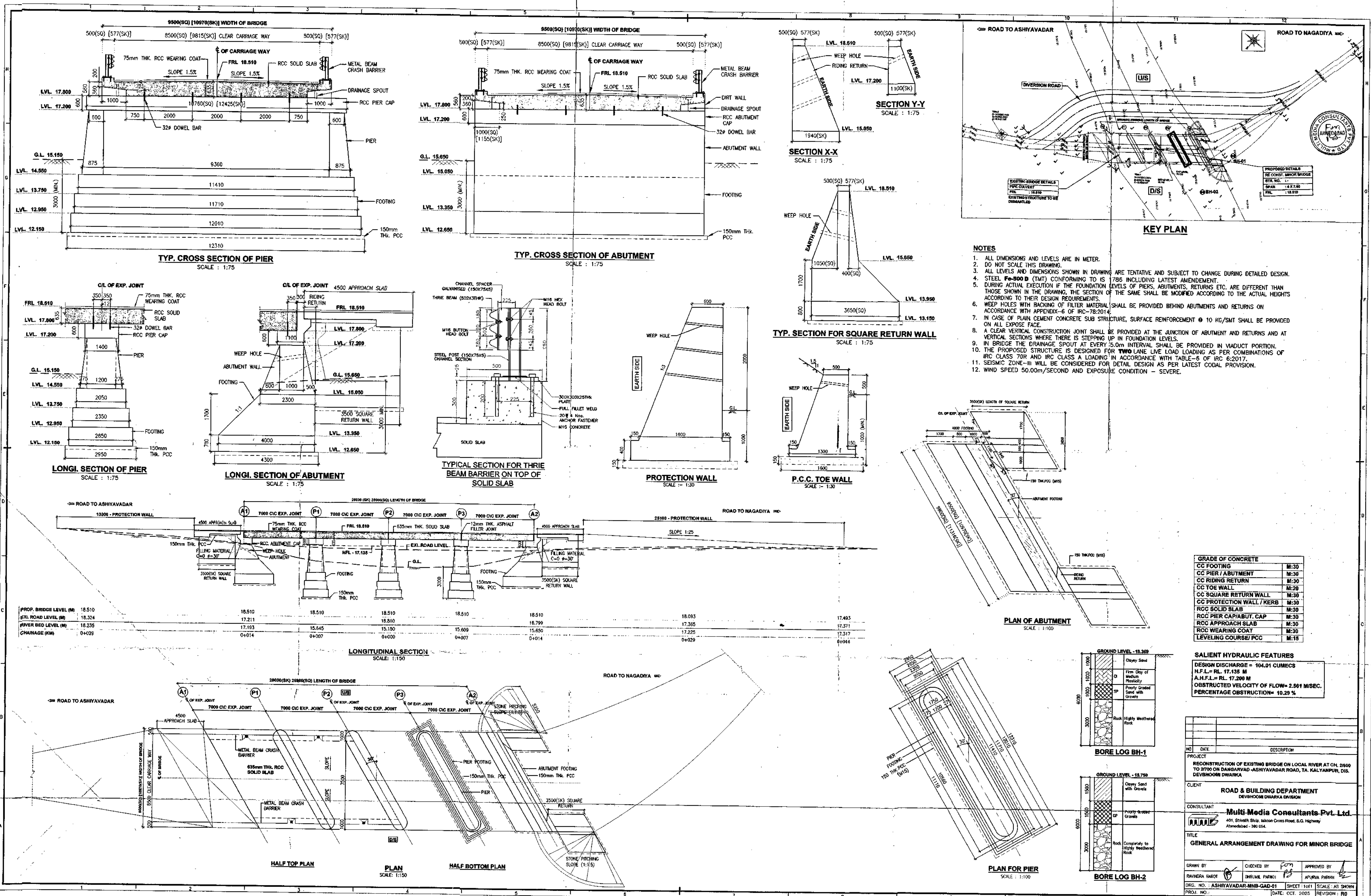
0 5 10 20 km

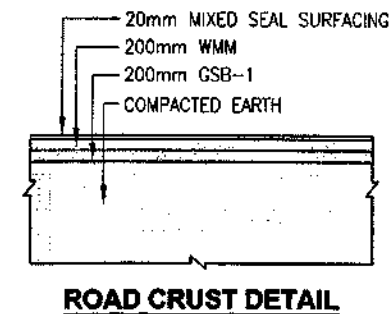
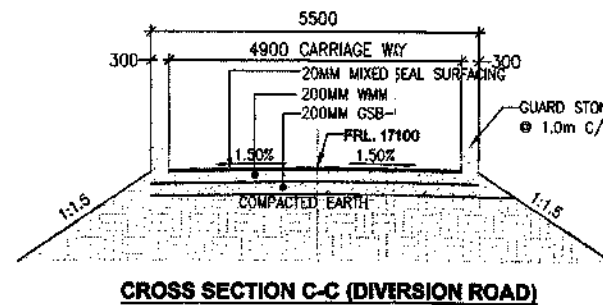
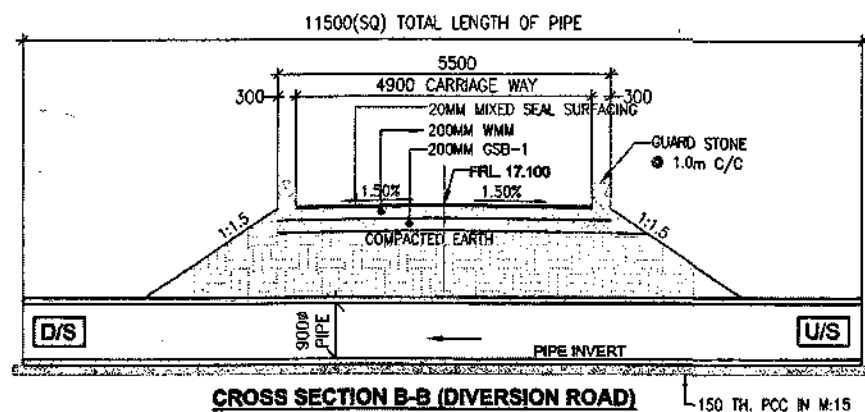
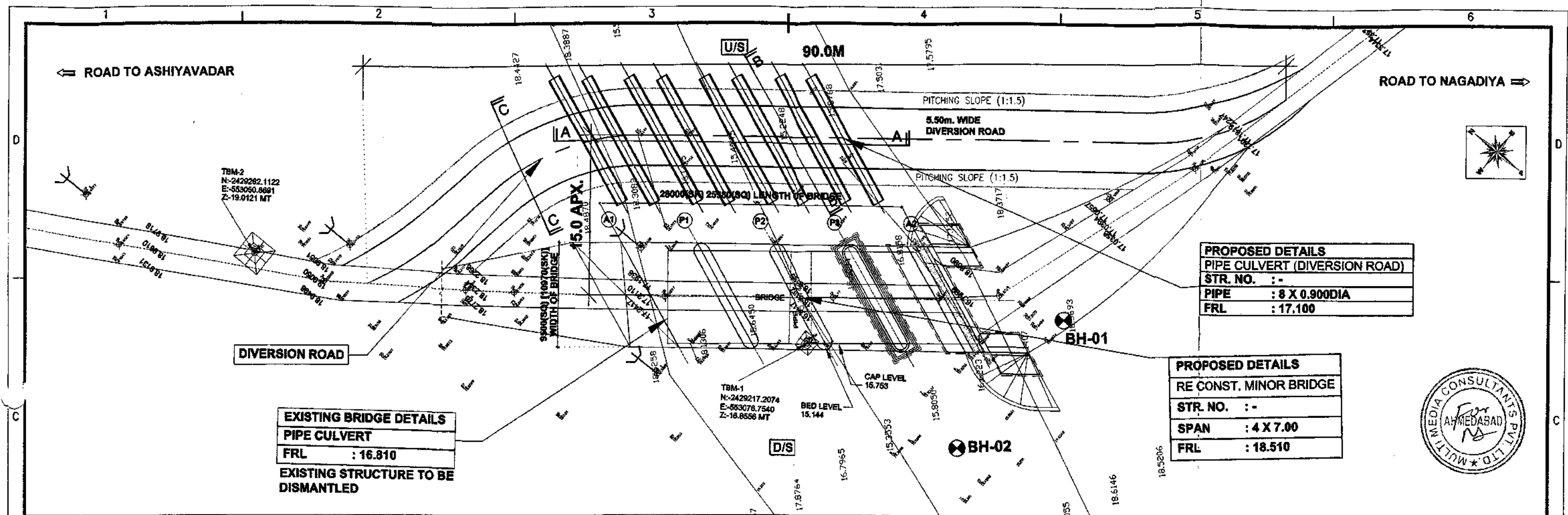
1. यह नक्शा जमीन मालिकों के द्वारा तैयार किया गया है और इसमें कोई भी त्रुटि या त्रुटि नहीं है।
 2. यह नक्शा जमीन मालिकों के द्वारा तैयार किया गया है और इसमें कोई भी त्रुटि या त्रुटि नहीं है।
 3. यह नक्शा जमीन मालिकों के द्वारा तैयार किया गया है और इसमें कोई भी त्रुटि या त्रुटि नहीं है।

Map not to Scale

**Name of Work: - Construction of Box Culvert on Suryavadar to Sani Dam Road Between Km.1/800 to 2/000
(MDR) Ta. Kalyanpur Dist. Devbhumi Dwarka**

	<p>Ch.1/800 To 2/000 Prop. Box Culvert New Construction</p>
	<p>Ch.1/800 To 2/000 Prop. Box Culvert New Construction</p>
	<p>Ch.1/800 To 2/000 Prop. Box Culvert New Construction</p>



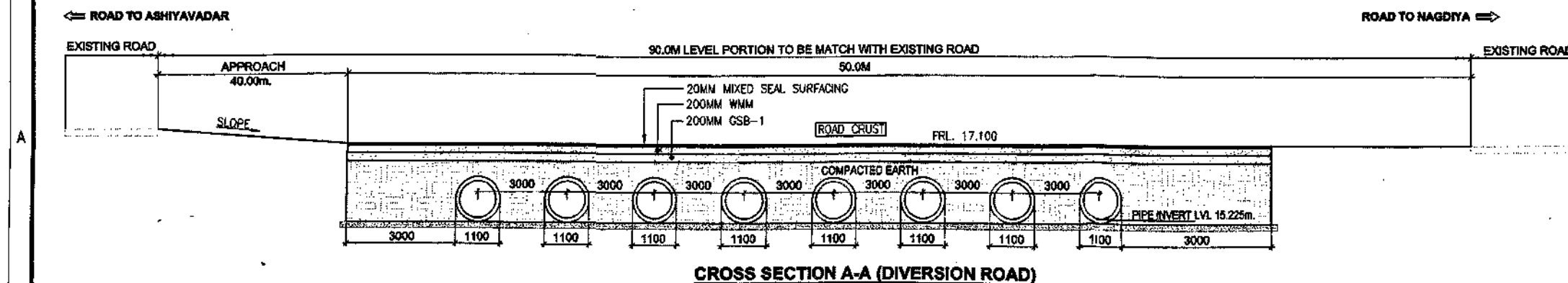


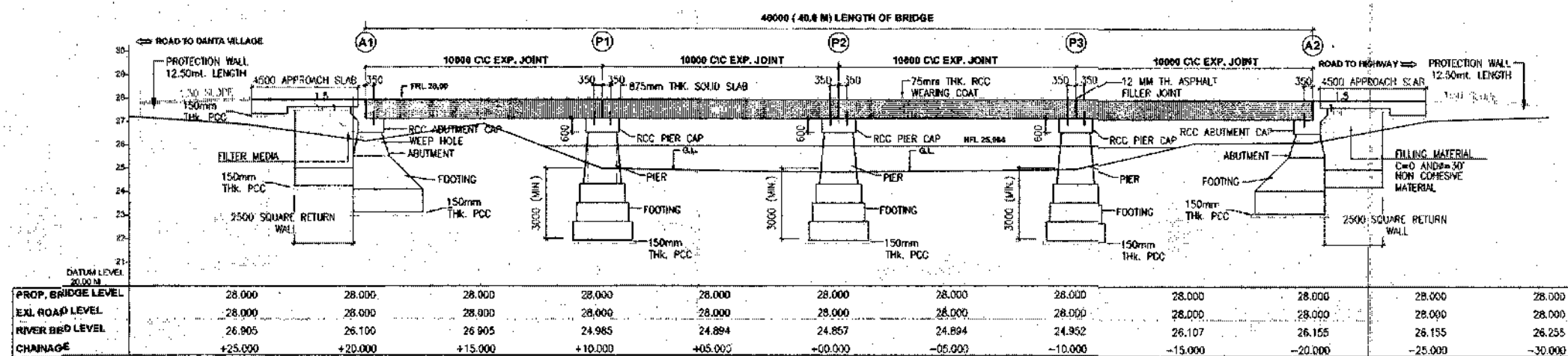
GRADE OF CONCRETE FOR DIVERSION	
PCC GUARD STONE	M:15
PCC LEVELING COURSE	M:15

NOTES

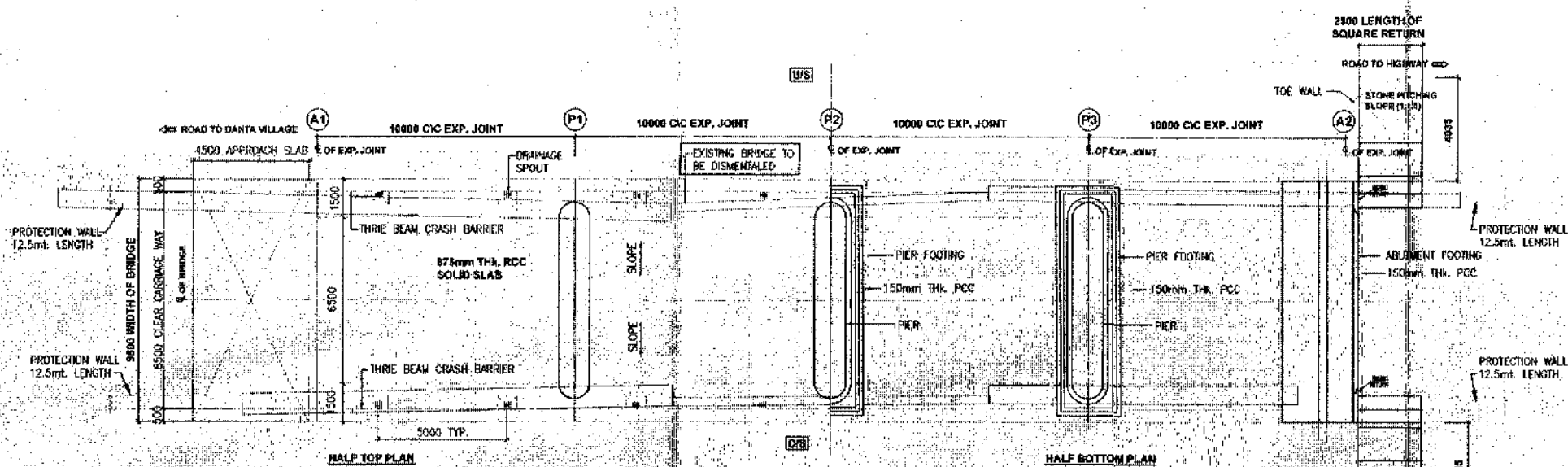
- ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER.
- DO NOT SCALE THIS DRAWING.
- BACK FILLING SHALL BE DONE WITH EARTH.
- THE R.C.C. PIPE SHALL BE NP-3 TYPE CONFIRMING TO IS:458:2003.
- DIVERSION ROAD WORK SHALL BE CARRIED OUT AS PER R&B GR NO. PRCH/10/2018/15/C.

NO.	DATE	DESCRIPTION
PROJECT		
RECONSTRUCTION OF EXISTING BRIDGE ON LOCAL RIVER AT CH. 2/600 TO 2/700 ON DANGARVAD -ASHIYAVADAR ROAD, TA. KALYANPUR, DIS. DEVBHOOI DWARKA		
CLIENT		
ROAD & BUILDING DEPARTMENT DEVBHOOI DWARKA DIVISION		
CONSULTANT		
Multi Media Consultants Pvt. Ltd. 401, Shivalik Shilp, Iskon Cross Road, S.G. Highway Ahmedabad - 380 054.		
TITLE		
GENERAL ARRANGEMENT DRAWING FOR DIVERSION DETAILS		
DRAWN BY	CHECKED BY	APPROVED BY
RAVINDRA BAROT	DHRUMIL PARIKH	APURVA PARIKH
DRG. NO. : ASHIYAVADAR-MNB-GAD-02	SHEET : 1 of 1	SCALE : AS SHOWN
PROJ. NO. :	DATE : OCT. 2025	REVISION : R0





LONGITUDINAL SECTION
SCALE: 1:10



PLAN
SCALE: 1:100

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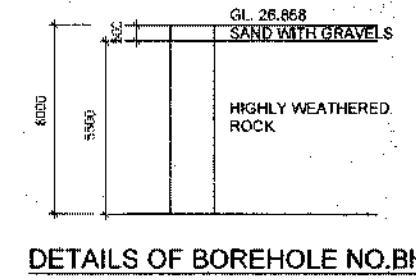
PLAN
SCALE: 1:100

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SCALE: 1:100

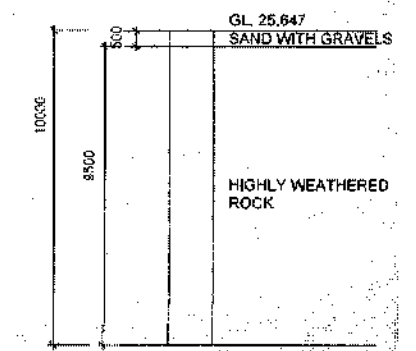
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SCALE: 1:100

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SCALE: 1:100

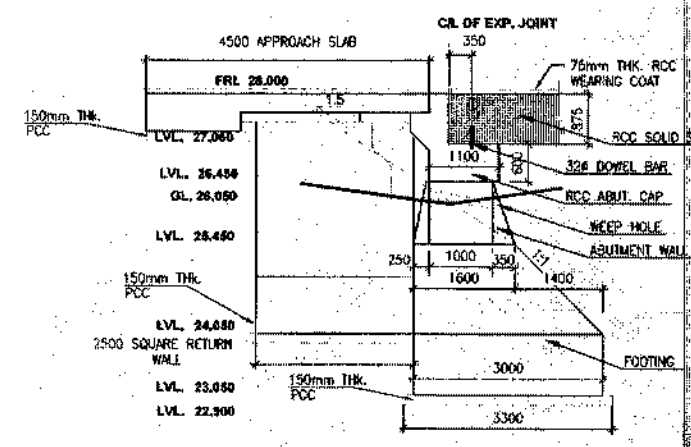
PLAN
SCALE: 1:100



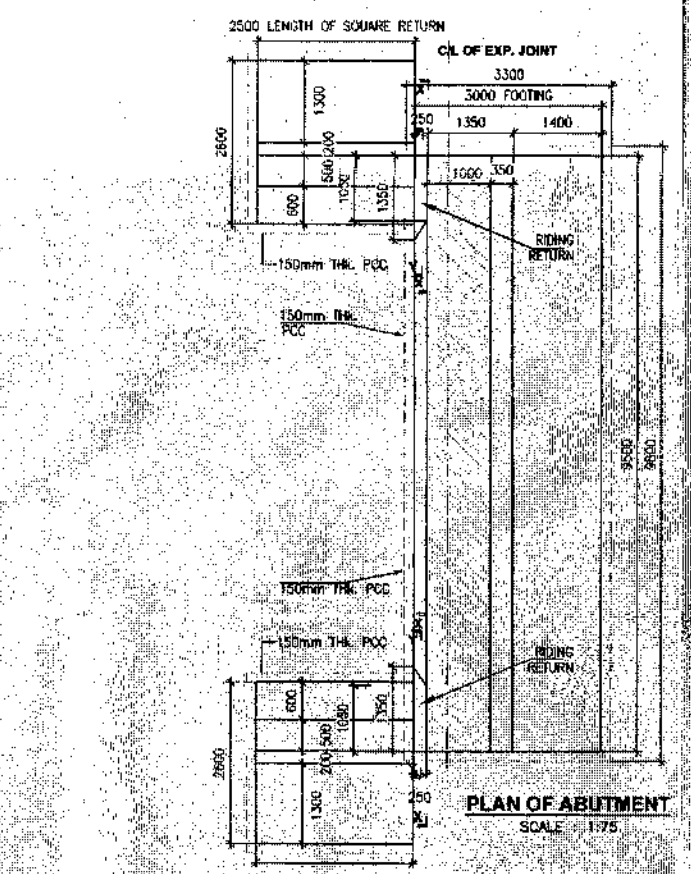
DETAILS OF BOREHOLE NO. BH-2



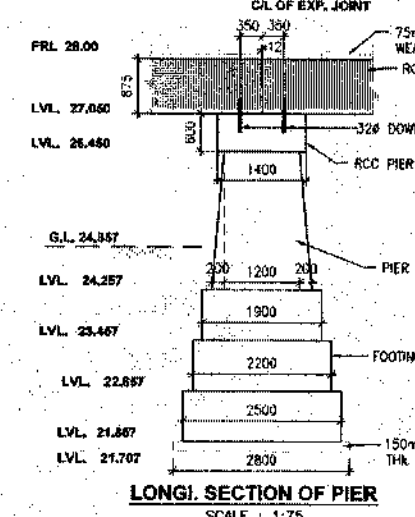
DETAILS OF BOREHOLE NO. BH-1



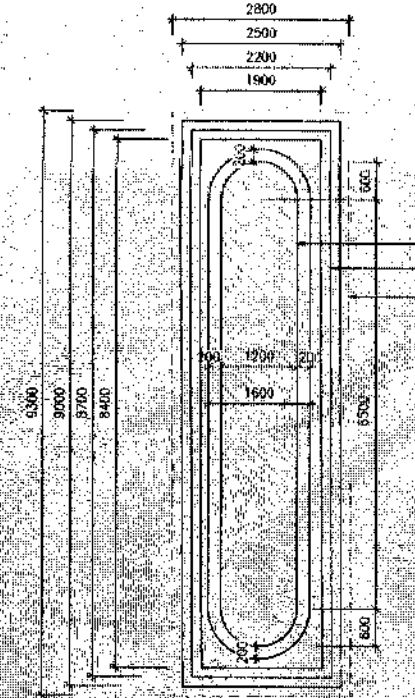
LONG. SECTION OF
ABUTMENT
SCALE: 1:75



PLAN OF ABUTMENT
SCALE: 1:75



LONG. SECTION OF PIER
SCALE: 1:75



PLAN OF PIER
SCALE: 1:75

SALIENT HYDRAULIC FEATURES

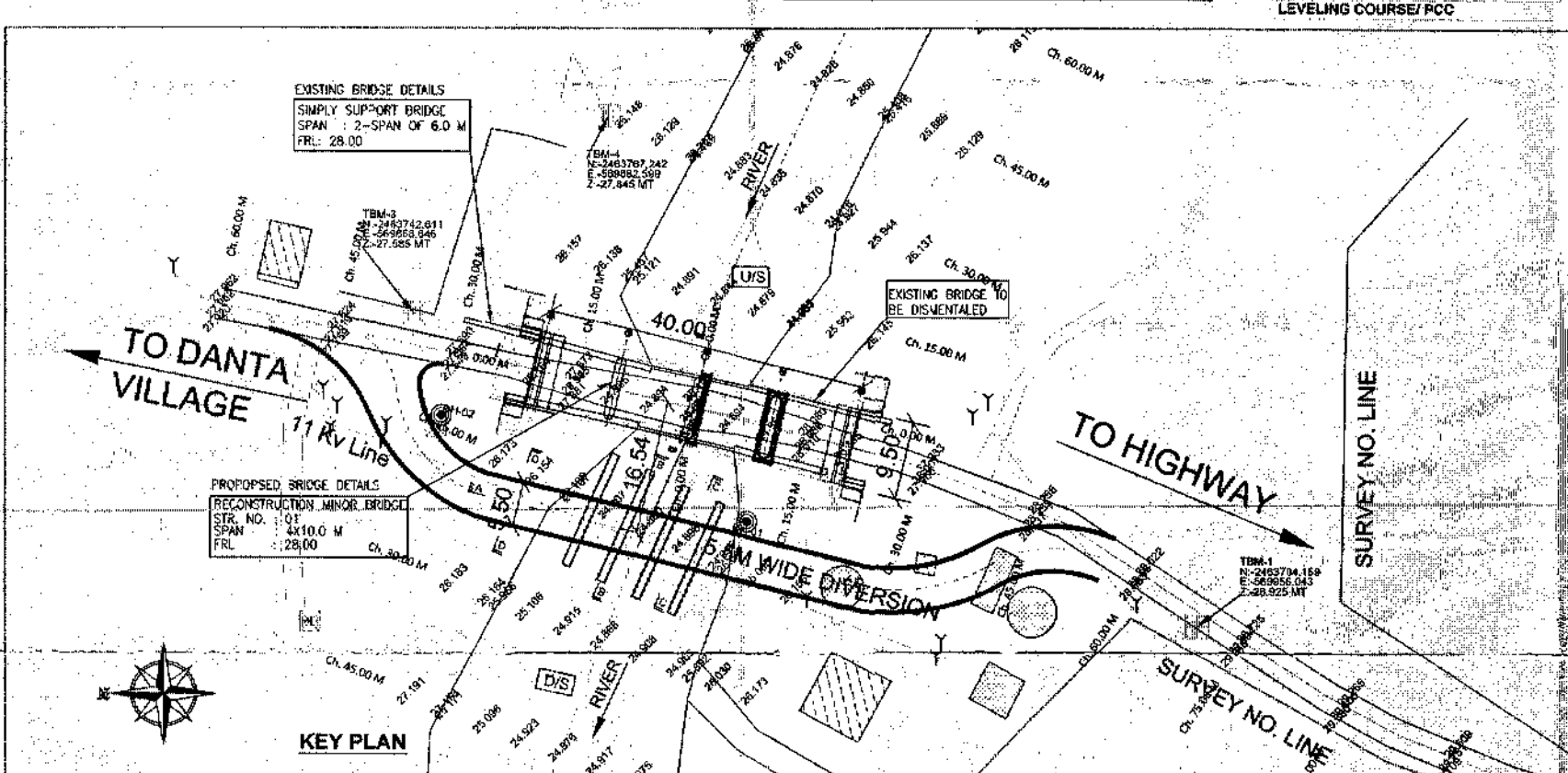
DESIGN DISCHARGE = 169.37 CUMecs
H.F.L. = RL. 26.964 M
A.M.F.L. = RL. 25.990 M
OBSTRUCTED VELOCITY OF FLOW = 2.281 M/SEC.
PERCENTAGE OBSTRUCTION = 6.89 %
PROPOSED ROAD RL = 28.00 M

GRADE OF CONCRETE

CC FOOTING M:30
CC PIER / ABUTMENT M:30
CC RIDING RETURN/SQUARE RETURN M:30
CC PROTECTION WALL M:30
PCC TOE WALL M:30
RCC SOLID SLAB M:30
RCC PIER CAP / ABUT. CAP M:30
RCC APPROACH SLAB M:30
RCC WEARING COAT M:30
LEVELING COURSE / PCC M:15

NOTES

1. ALL DIMENSIONS AND LEVELS ARE IN METRE.
2. DO NOT SCALE THIS DRAWING.
3. ALL LEVELS AND DIMENSIONS SHOWN IN DRAWING ARE TENTATIVE AND SUBJECT TO CHANGE DURING DETAILED DESIGN.
4. STEEL Φ 500 B (TMT) CONFORMING TO IS 1786 INCLUDING LATEST AMENDMENT.
5. DURING ACTUAL EXECUTION IF THE FOUNDATION LEVELS OF PIERS, ABUTMENTS, RETURNS ETC. ARE DIFFERENT THAN THOSE SHOWN IN THE DRAWING, THE SECTION OF THE SAME SHALL BE MODIFIED ACCORDING TO THE ACTUAL HEIGHTS ACCORDING TO THEIR DESIGN REQUIREMENTS.
6. WEIR HOLES WITH BORING OF FILTER MATERIAL SHALL BE PROVIDED BEHIND ABUTMENTS AND RETURNS IN ACCORDANCE WITH PROVISIONS OF IRC-76/2014.
7. IN CASE OF PLAIN CONCRETE SUB STRUCTURE, SURFACE REINFORCEMENT Φ 10 @ 80/SMT SHALL BE PROVIDED ON ALL THIRDS FACE.
8. A CLEAR VERTICAL CONSTRUCTION JOINT SHALL BE PROVIDED AT THE JUNCTION OF ABUTMENT AND RETURNS AND AT VERTICAL SECTIONS WHERE THERE IS STEPPING UP IN FOUNDATION LEVELS.
9. IN BRIDGE THE DRAINAGE SPOUT AT EVERY 50M INTERVAL SHALL BE PROVIDED IN HORIZONTAL VERTICAL PATTERN.
10. THE PROPOSED STRUCTURE IS DESIGNED FOR TWO LANE LIVE LOAD LOADING AS PER COMBINATIONS OF IRC CLASS 70R AND IRC CLASS A LOADING IN ACCORDANCE WITH TABLE-6 OF IRC 8:2017.
11. SETBACK ZONE-IV WILL BE CONSIDERED FOR DETAIL DESIGN AS PER LATEST CODAL PROVISION.
12. WIND SPEED 50.0m/SECOND AND EXPOSURE CONDITION - SEVERE.
13. FOR SOIL REPORT, REFER SHREEMATH LABORATORY AND CON. PVT. LTD. JOB NO. MT-3981 DATED 02-08-2025



KEY PLAN

NO.	DATE	DESCRIPTION
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PROJECT: RECONSTRUCTION OF EXISTING BRIDGE ON LOCAL RIVER AT CH. 0/00 TO 0/200 ON DANTA TO HIGHWAY ROAD NEAR DANTA VILLAGE KHAMHALIYA

CLIENT: ROAD & BUILDING DEPARTMENT, DEVRHUMI DWARKA PANCHAYAT DIVISION

CONSULTANT: Multi Media Consultants Pvt. Ltd.

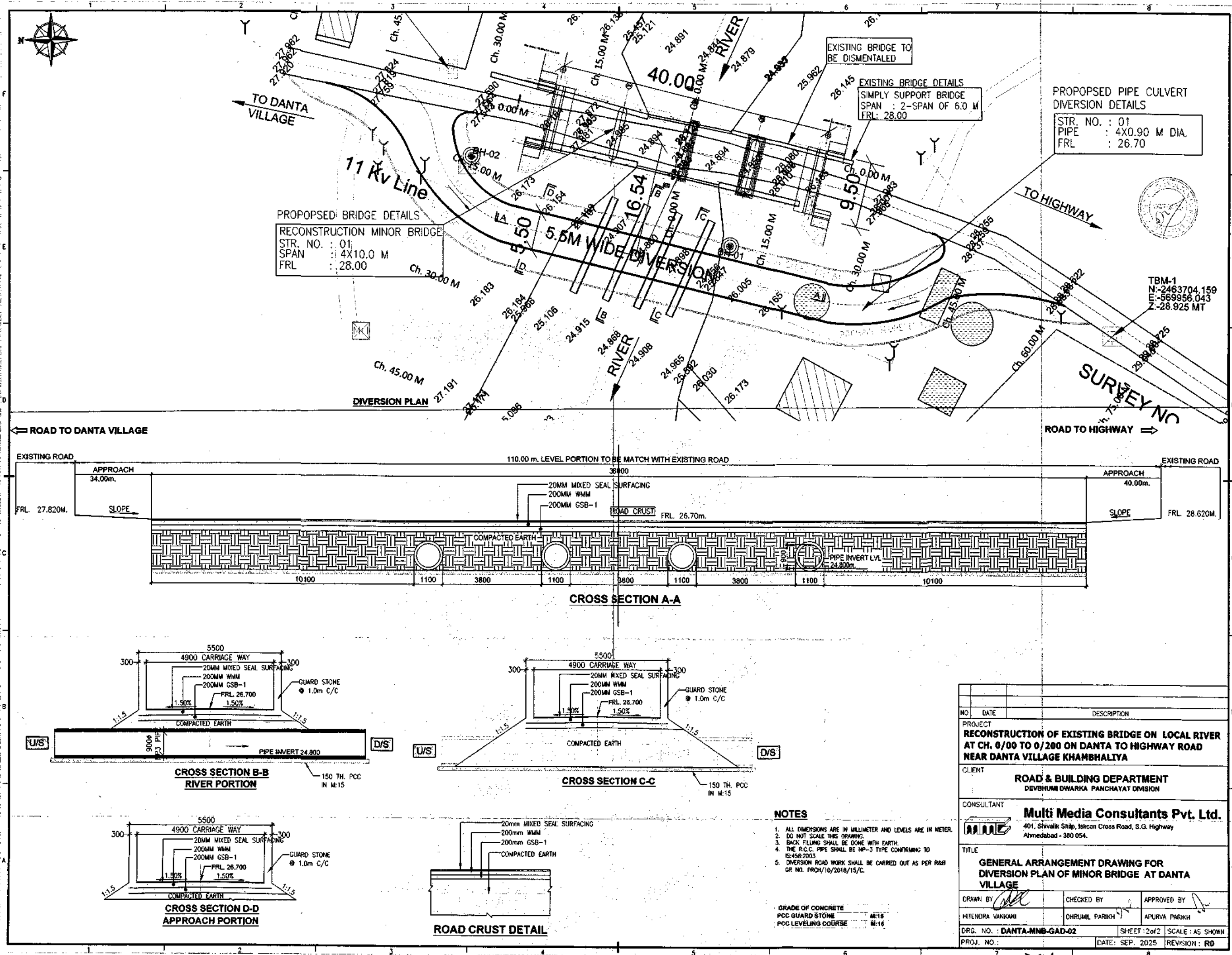
401, Shivraj, 3rd Floor, Nandan Cross Road, S.G. Highway, Ahmedabad - 380 054.

TITLE: GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGE AT DANTA VILLAGE

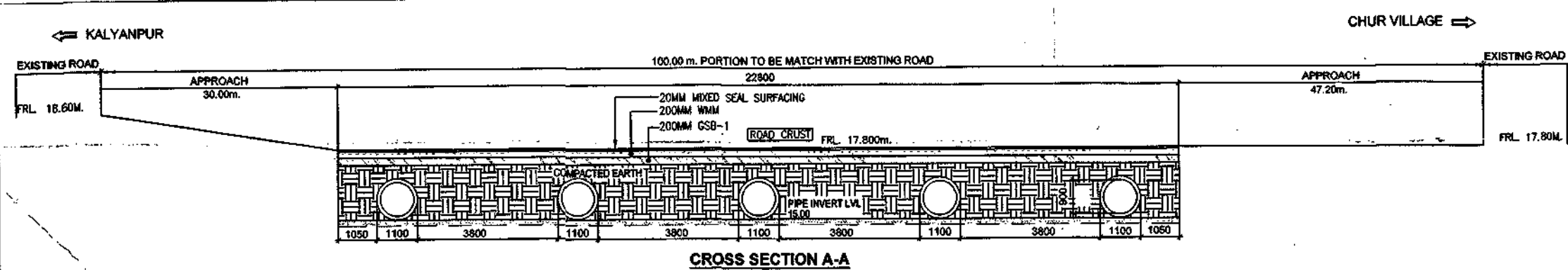
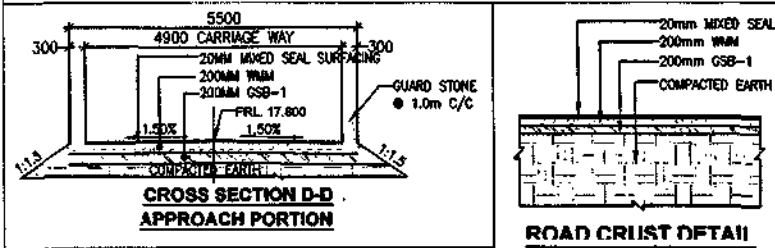
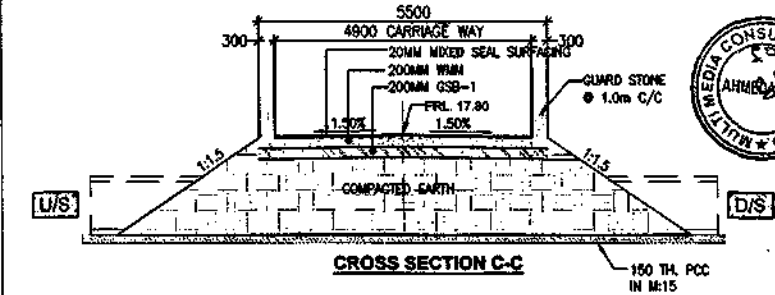
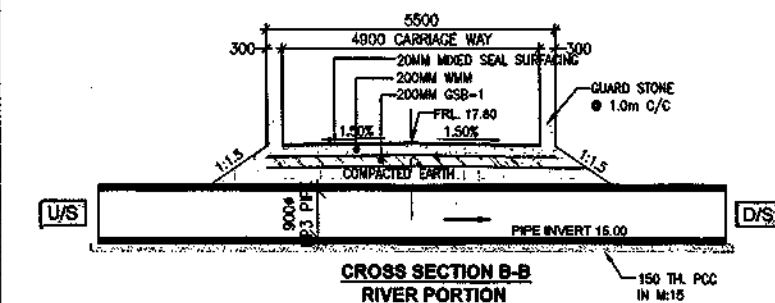
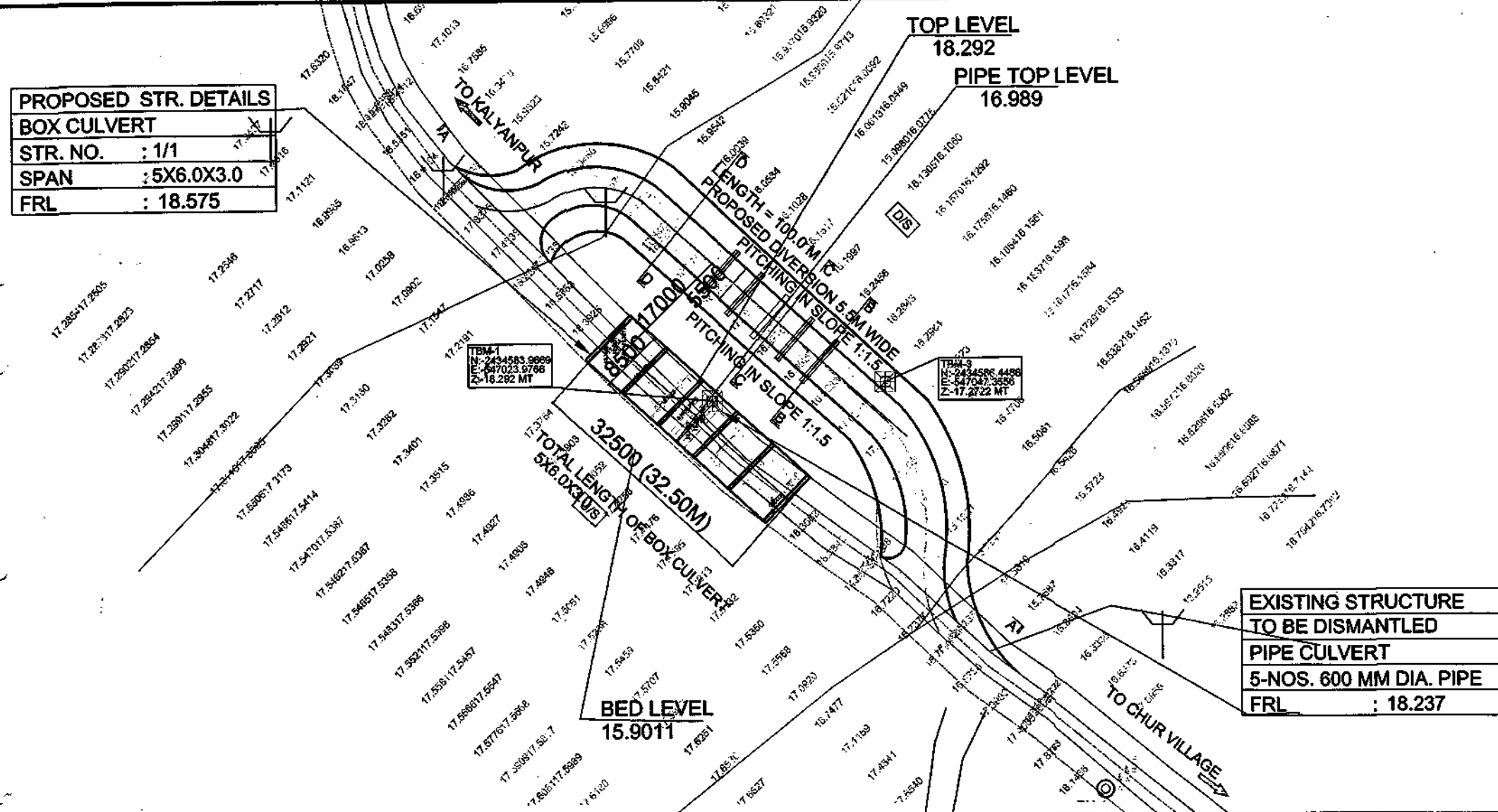
DRAWN BY: HENDRA VANNAH, DESIGN BY: HENDRA VANNAH, CHECKED BY: HENDRA VANNAH, APPROVED BY: HENDRA VANNAH

DRG. NO.: DANTA-MNB-GAD-01, SHEET: 1 of 2, SCALE: AS SHOWN

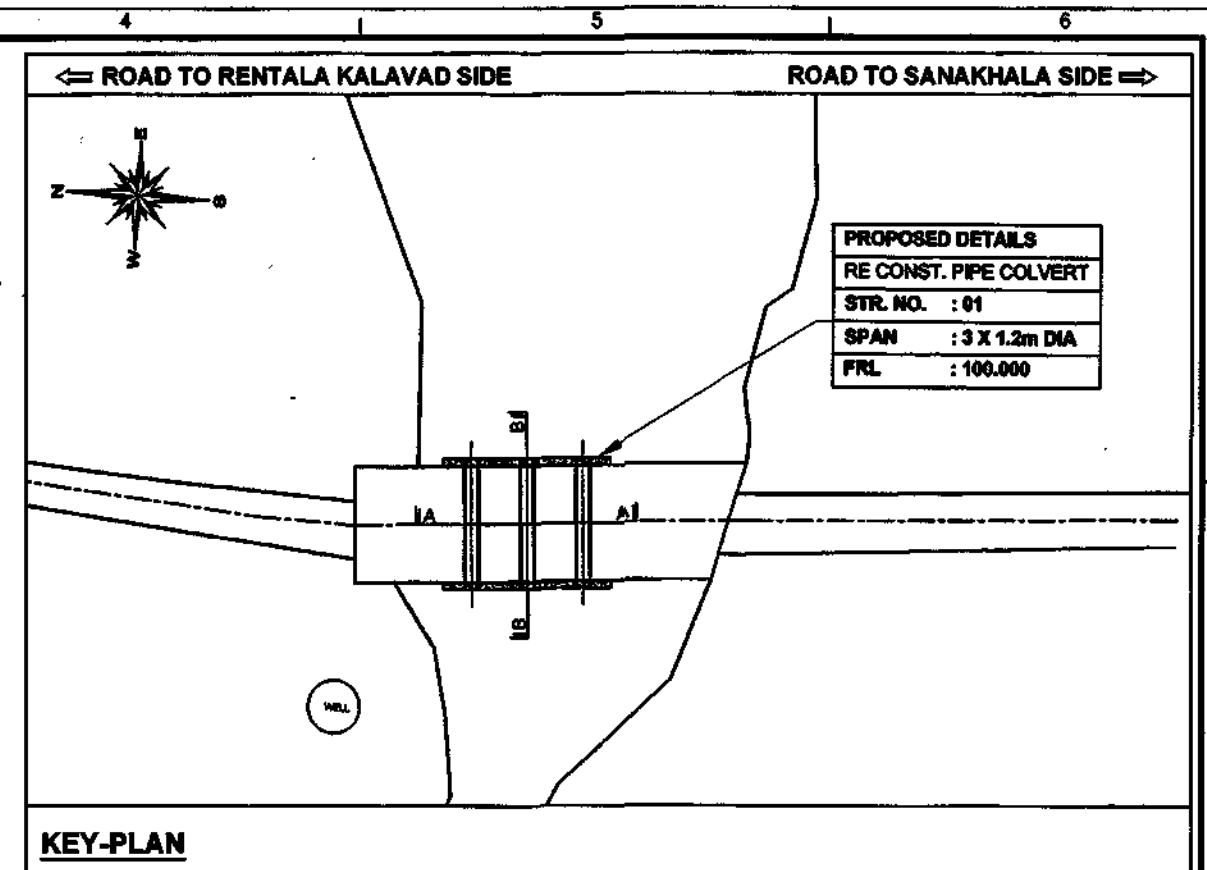
PROJ. NO.: , DATE: SEP. 2025, REVISION: R0



PROPOSED STR. DETAILS	
BOX CULVERT	
STR. NO.	: 1/1
SPAN	: 5X6.0X3.0
FRL	: 18.575



NO.	DATE	DESCRIPTION
PROJECT		
CONSTRUCTION OF NEW BOX CULVERT ON LOCAL RIVER AT CH. 0/400 TO 0/600 ON HARIPUR-PANELI ROAD TAL. KALYANPUR DIST. DEVBHUMI DWARKA		
CLIENT		
ROAD & BUILDING DEPARTMENT DEVBHUMI DWARKA PANCHAYAT DIVISION		
CONSULTANT		
Multi Media Consultants Pvt. Ltd. 401, Shivalik Shilp, Ialcan Cross Road, S.G. Highway Ahmedabad - 380 054.		
TITLE		
GENERAL ARRANGEMENT DRAWING SHOWING DIVERSION PLAN AND DETAILS		
DRAWN BY	CHECKED BY	APPROVED BY
HITENDRA YANKANI	CHRUMIL PARIKH	APURVA PARIKH
DRG. NO. : HARIPUR PANELI-QAD-02	SHEET : 1 of 1	SCALE : AS SHOWN
PROJ. NO. :	DATE : SEP. 2025	REVISION : R0

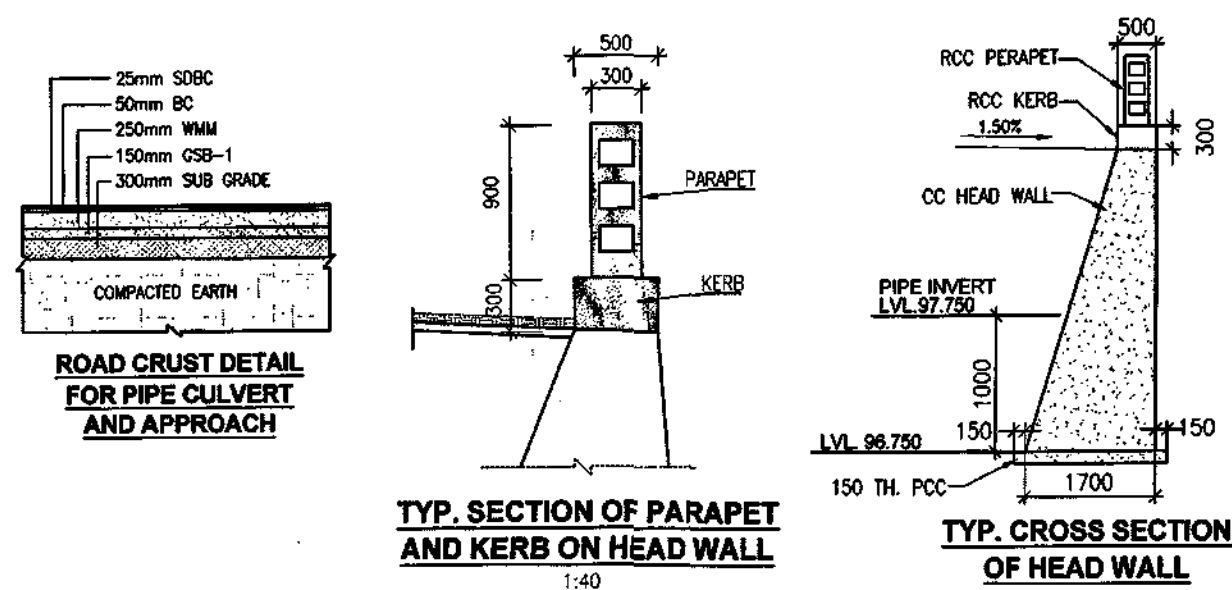


KEY-PLAN



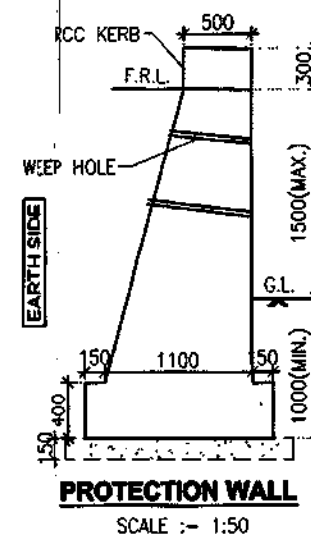
1. ALL DIMENSION ARE MILLIMETER AND LEVELS ARE IN METER.
2. ALL RCC PIPES ARE NP4 TYPE CONFORMING TO I.S. 458:2003.
3. LONGITUDINAL SLOPE OF PIPE SHALL BE MINIMUM 1:1000.
4. WEEP HOLES WITH BACKING FILTER MATERIAL SHALL BE PROVIDED BEHIND PROTECTION WALL ACCORDANCE WITH APPENDIX - 6 OF IRC:78-2014.
5. IN CASE OF PLAIN CEMENT CONCRETE SUBSTRUCTURE, SURFACE REINFORCEMENT 7.50 KG/SM2 SHALL BE PROVIDED ON ALL EXPOSED FACES.
6. IF THE CUSION OVER THE PIPE LESS THAN 600MM, PIPE SHOULD BE ENCASED WITH M:20 CONCRETE.

CROSS SECTION B-B



**TYP. SECTION OF PARAPET
AND KERB ON HEAD WALL**


TYP. CROSS SECTION
OF HEAD WALL

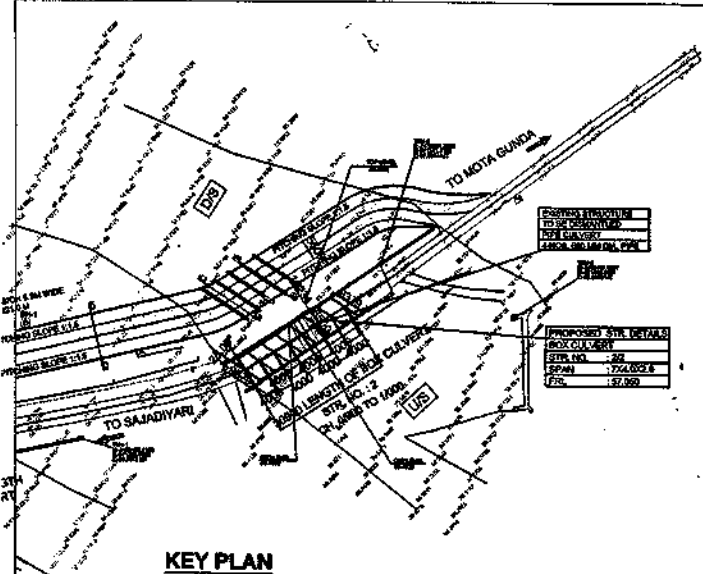
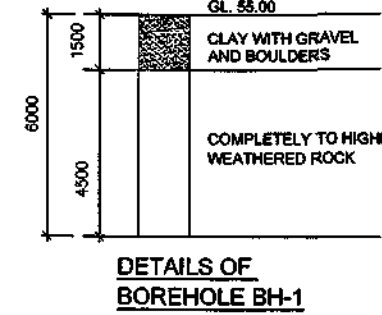
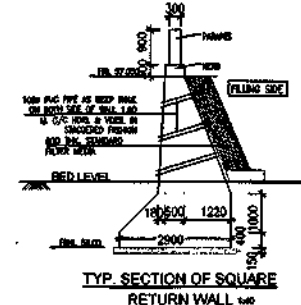
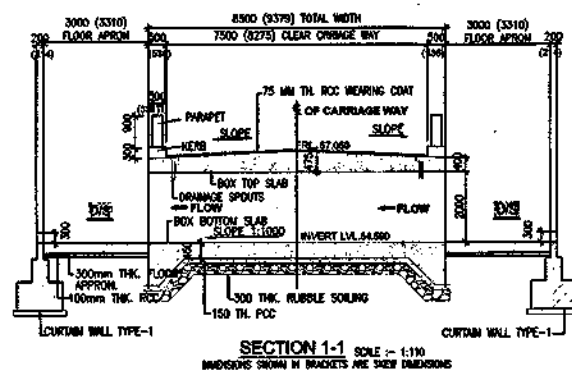
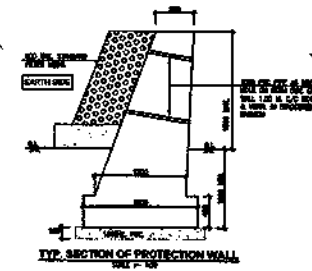
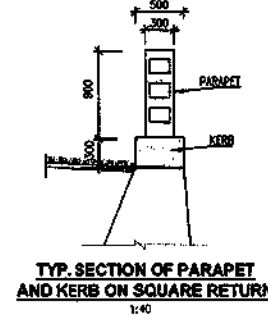
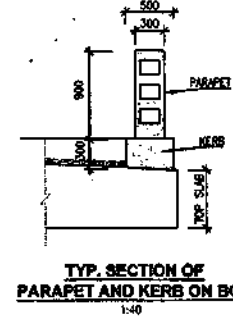
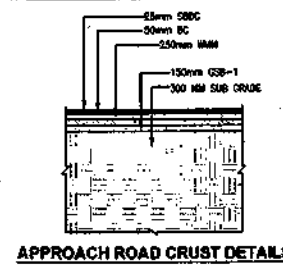
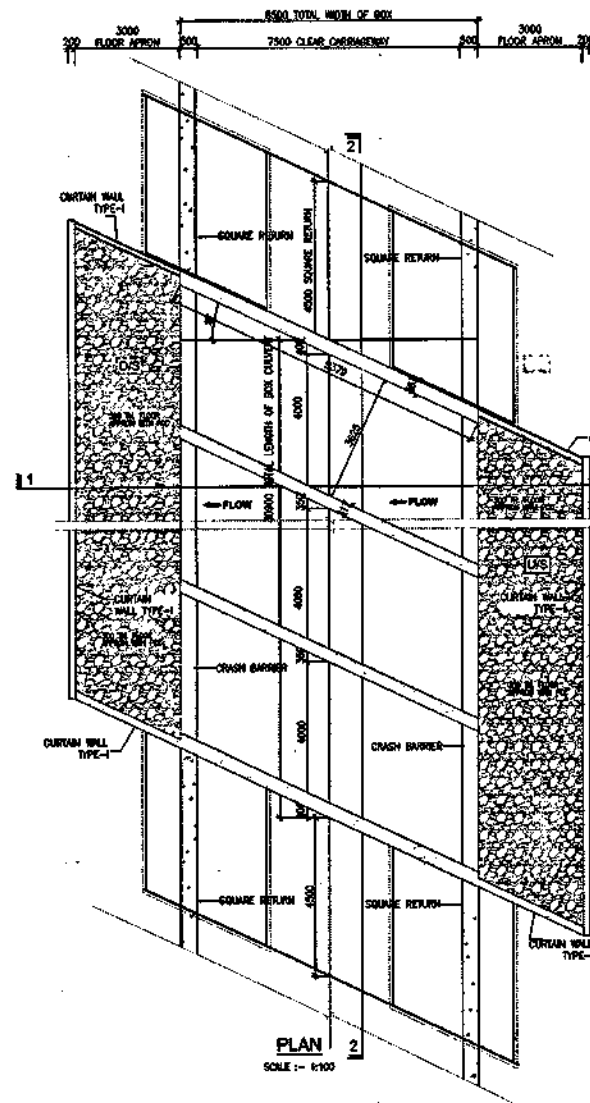


GRADE TABLE FOR PIPE CULVERT

CC HEAD WALL	=	M:30
CC PROTECTION WALL	=	M:30
RCC KERB	=	M:30
RCC PARAPET	=	M:30
POC LEVELING COURSE	=	M15

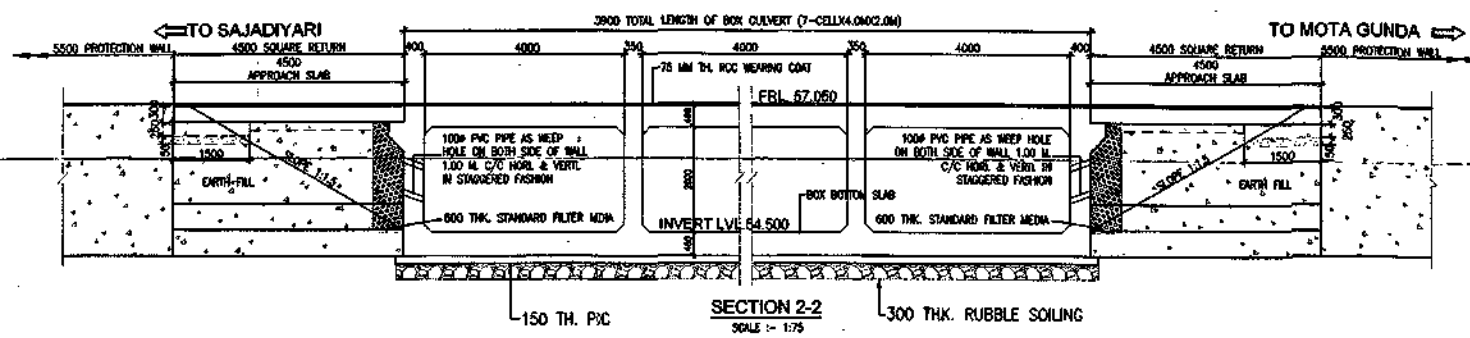
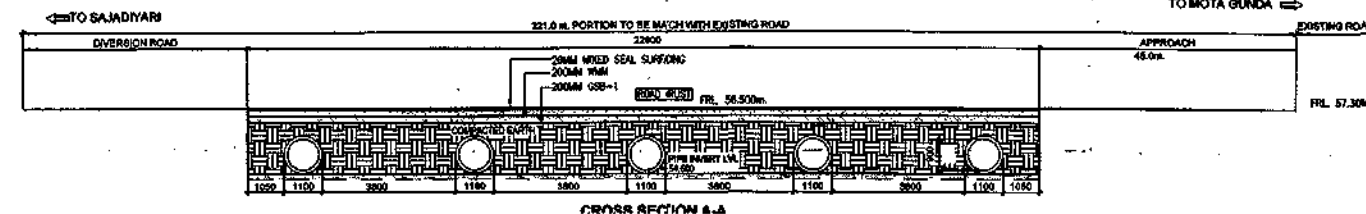
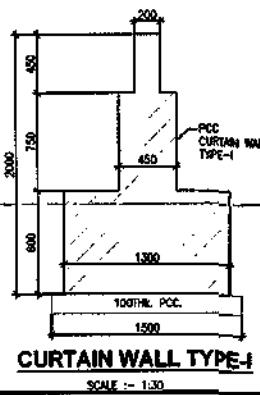


NO	DATE	DESCRIPTION			
PROJECT					
CONSTRUCTION OF PIPE CULVERT AT CH. KM. 1/800 TO 2/000 ON BHONAYAVADAR-SANKLA ROAD, TALUKA BHANVAD, DISTRICT-DEV BHUMI DWARKA.					
CLIENT					
ROAD & BUILDING DEPARTMENT DEV BHUMI DWARKA PANCHAYAT DIVISION					
CONSULTANT					
 Multi Media Consultants Pvt. Ltd. 401, Shivalki Ship, Istcon Cross Road, S.G. Highway Ahmedabad - 380 054.					
TITLE					
GENERAL ARRANGEMENT DRAWING FOR PROPOSED PIPE CULVERT (3X1.2m DIA)					
DRAWN BY		CHECKED BY		APPROVED BY	
TEJAS PARMAR		DHARMIL PARIKH		APURVA PARIKH	
DRG. NO. : RETAKALAVAD-PIPE-GAD-01		SHEET : 1 of 1		SCALE : AS SHOWN	
PROJ. NO. :		DATE : JAN. 2006		REVISION : R0	



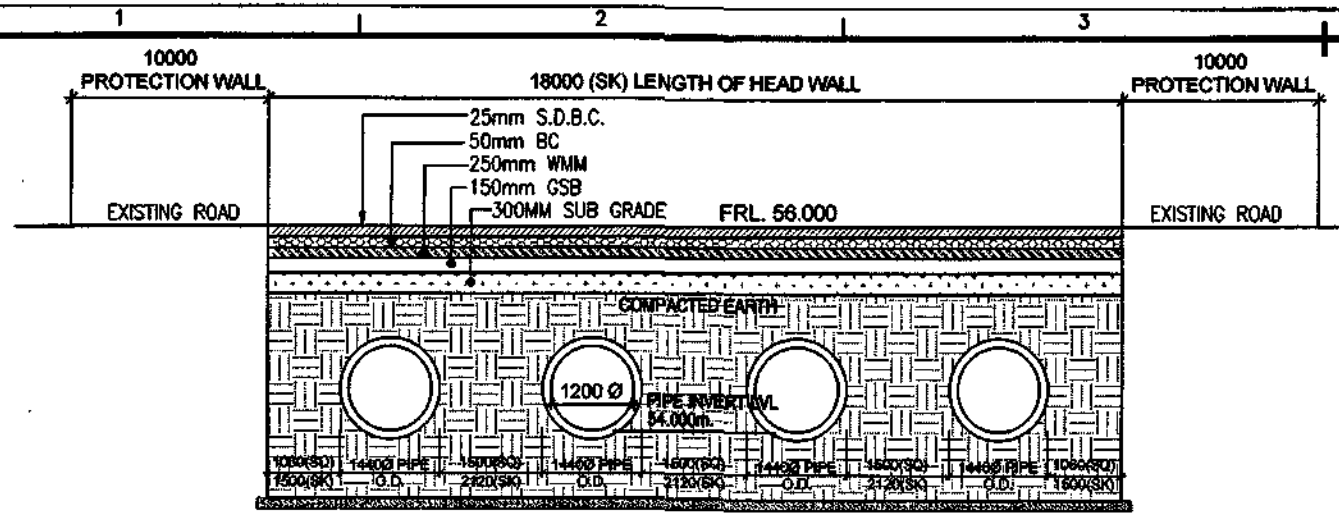
- NOTES**
1. ALL DIMENSIONS AND LEVELS ARE IN METER.
 2. DO NOT SCALE THIS DRAWING.
 3. ALL LEVELS AND DIMENSIONS SHOWN IN DRAWING ARE TENTATIVE AND SUBJECT TO CHANGE DURING DETAILED DESIGN.
 4. STEEL $\Phi 8-200 \times 6$ (TMT) CONFORMING TO IS 1786 INCLUDING LATEST AMENDMENT.
 5. WEED HOLES WITH BACKING OF FILTER MATERIAL SHALL BE PROVIDED BEHIND BOX AND RETURNS ON ACCORDANCE WITH APPENDIX-6 OF IRC-78:2014.
 6. IN BRIDGE THE DRAINAGE SPOUT AT EVERY 5.0m INTERVAL SHALL BE PROVIDED.
 7. THE PROPOSED STRUCTURE IS DESIGNED FOR TWO LANE LIVE LOAD LOADING AS PER COMBINATIONS OF IRC CLASS 70R AND IRC CLASS A LOADING IN ACCORDANCE WITH TABLE-6 OF IRC 8:2017.
 8. WIND SPEED 50.00m/SECOND AND EXPOSURE CONDITION - SEVERE
 9. FOR SOIL REPORT, REFER STERN TESTING & CONSULTANCY PVT. LTD. JOB NO. MT-4050
 10. THE BACK FILL MATERIAL BEHIND WALL SHOULD HAVE PROPERTIES OF C-0 AND S-07
 11. IN CASE OF PLAIN CEMENT CONCRETE SUBSTRUCTURE, SURFACE REINFORCEMENT 10 KG/SMT SHALL BE PROVIDED ON ALL EXPOSED FACES.
- NOTES FOR DIVERSION WORKS**
1. ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER.
 2. DO NOT SCALE THIS DRAWING.
 3. BACK FILLING SHALL BE DONE WITH EARTH.
 4. THE R.C.C. PIPE SHALL BE NP-3 TYPE CONFORMING TO IS-458:2003.
 5. DIVERSION ROAD WORK SHALL BE CARRIED OUT AS PER R&B GR NO. PRCH/10/2018/15/C.

GRADE TABLE	
RCC BOX	= M30
PCC LEVELING COURSE	= M15
PCC CURTAIN WALL	= M20
RCC APPROACH SLAB	= M30
RCC KERB/PARAPET	= M30
RCC WEARING COAT	= M30
CC SQUARE RETURN WALL	= M30
CC PROTECTION WALL	= M30

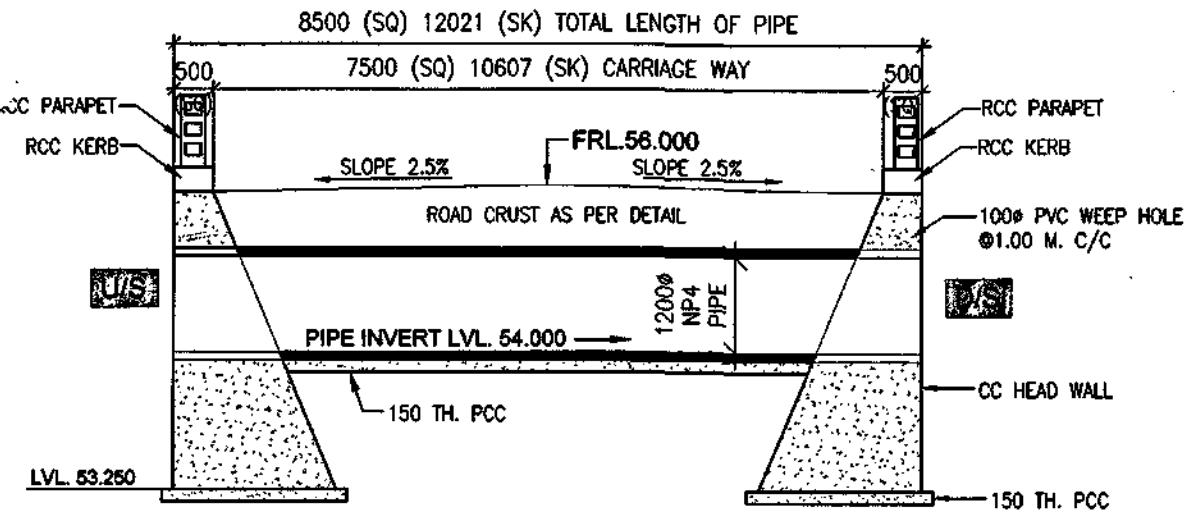


GRADE TABLE FOR DIVERSION WORKS	
PCC GUARD STONE	= M15
PCC LEVELING COURSE	= M15

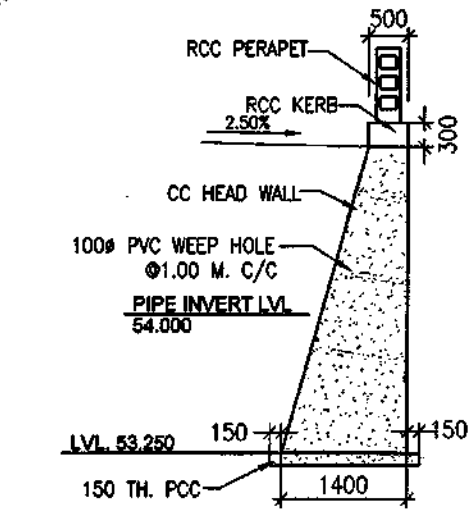
NO.	DATE	DESCRIPTION
1		PROJECT
2		CONSTRUCTION OF BOX TYPE MINOR BRIDGE AT CH. 0/900 TO 3/000 ON SAJADIYARI GUNDA ROAD TAL. SHARWAD DIST. DEWASHWADI DISTRICT
3		CLIENT
4		ROAD & BUILDING DEPARTMENT DEWASHWADI DISTRICT PANCHAYAT DEWASHWADI
5		CONSULTANT
6		Multi Media Consultants Pvt. Ltd. 401, 3rd Floor, Bypass Road, G.D. Highway Amravati - 431 004
7		TITLE
8		GENERAL ARRANGEMENT DRAWING FOR PROPOSED BOX CULVERT (7 CELL X 4.0M X 2.0M) & DIVERSION ROAD AT CH. 0/900 TO 1/000
9		DRAWN BY
10		CHECKED BY
11		APPROVED BY
12		HTENDRA VAMANI
13		CHIRAG PANCH
14		APURVA PANCH
15		DRG. NO. : SAJADIYARI GUNDA-GAD-01
16		SHEET: 1 of 1
17		SCALE: AS SHOWN
18		PROJ. NO. :
19		DATE: DEC. 2025
20		REVISION: R0



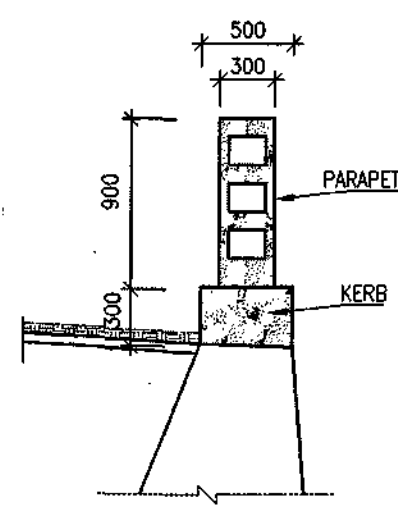
CROSS SECTION A-A



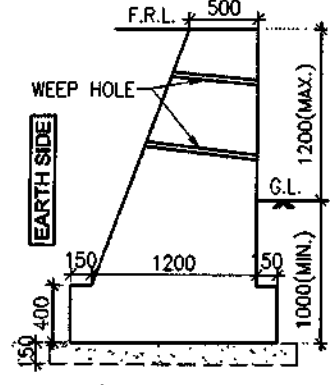
CROSS SECTION B-B



TYP. CROSS SECTION OF HEAD WALL

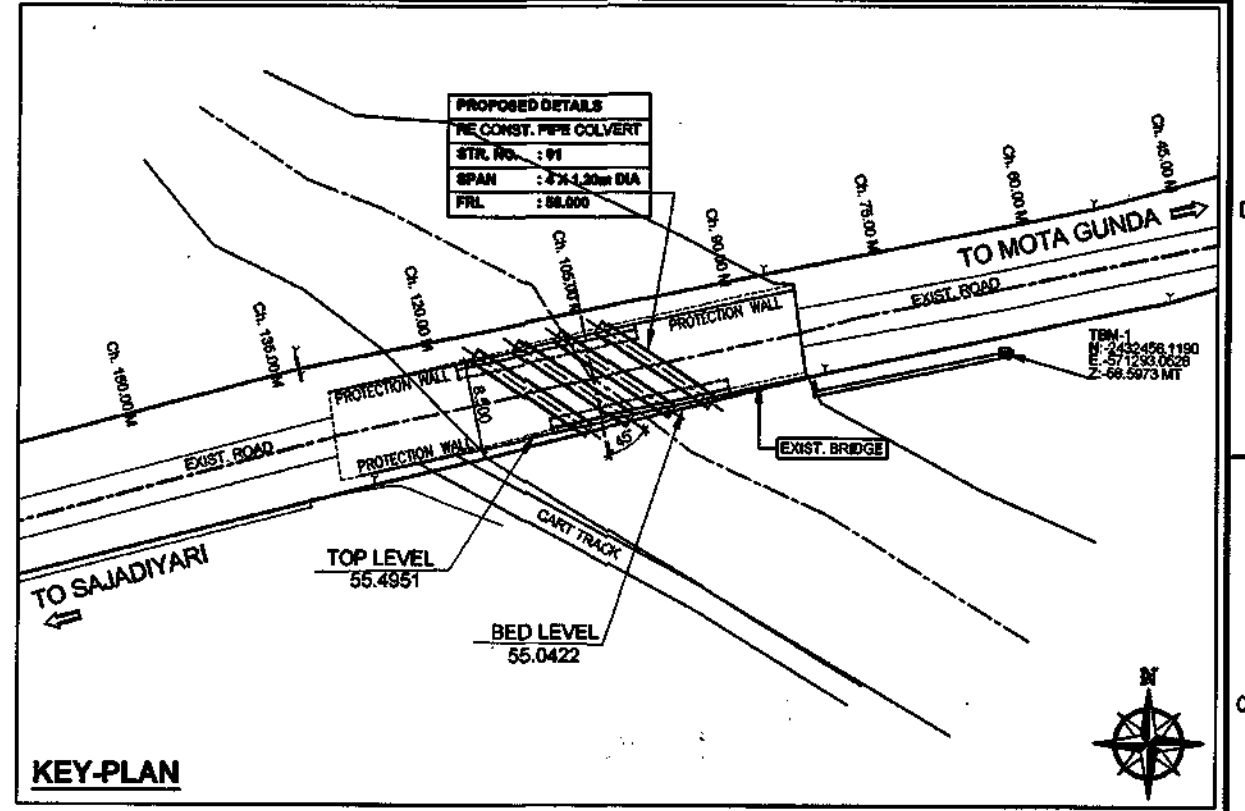


TYP. SECTION OF PARAPET AND KERB ON HEAD WALL



PROTECTION WALL
SCALE :- 1:50

GRADE TABLE FOR PIPE CULVERT	
CC HEAD WALL	= M:30
CC PROTECTION WALL	= M:30
RCC KERB	= M:30
RCC PARAPET	= M:30
PCC LEVELING COURSE	= M:15



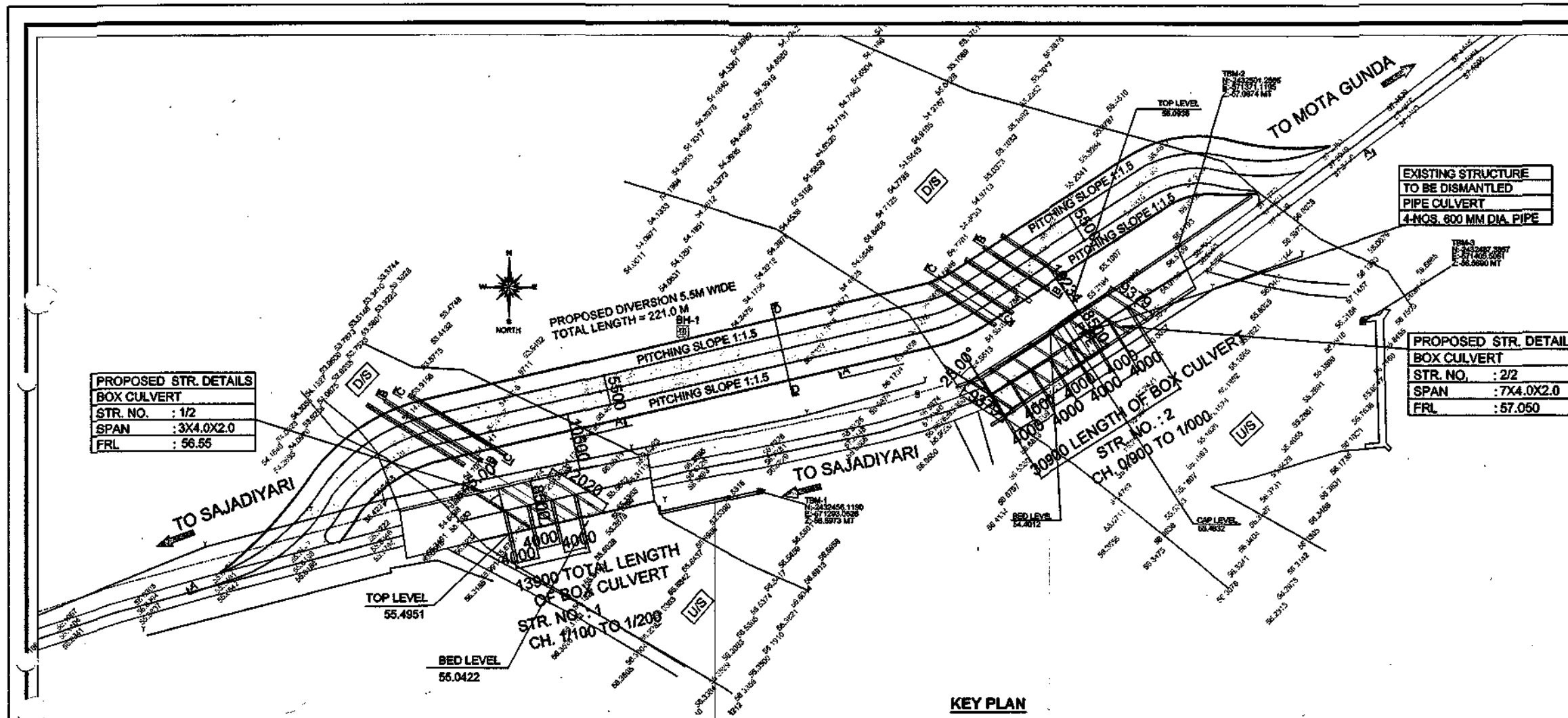
KEY-PLAN

NOTES:-

1. ALL DIMENSION ARE MILIMETER AND LEVELS ARE IN METER.
2. ALL RCC PIPES ARE NP4 TYPE CONFORMING TO I.S. 458:2003.
3. LONGITUDINAL SLOPE OF PIPE SHALL BE MINIMUM 1:1000.
4. WEEP HOLES WITH BACKING FILTER MATERIAL SHAAL BE PROVIDED BEHIND PROTECTION WALL ACCORDANCE WITH APPENDIX - 6 OF IRC:78-2014.
5. IN CASE OF PLAIN CEMENT CONCRETE SUBSTRUCTURE, SURFACE REINFORCEMENT 7.50 KG/SMT SHALL BE PROVIDED ON ALL EXPOSED FACES.
6. IF THE CUSION OVER THE PIPE LESS THAN 600MM, PIPE SHOULD BE ENCASED WITH M:20 CONCRETE.



NO.	DATE	DESCRIPTION
PROJECT	CONSTRUCTION OF BOX TYPE MINOR BRIDGE AT CH. 1/100 TO 1/200 ON SAJADIYALI GUNDA ROAD TAL. BHANWAD DIST. DEVBHUMI DWARKA	
CLIENT	ROAD & BUILDING DEPARTMENT DEVBHUMI DWARKA PANCHAYAT DIVISION	
CONSULTANT	Multi Media Consultants Pvt. Ltd. 401, Shivalik Ship, Iskon Cross Road, S.G. Highway Ahmedabad - 380 054.	
TITLE	GENERAL ARRANGEMENT DRAWING FOR PROPOSED PIPE CULVERT (4 PIPES X 1.200m. DIA) AT CH. 1/100 TO 1/200.	
DRAWN BY	CHECKED BY	APPROVED BY
DHARMESH	DHRUMIL PARIKH	APURVA PARIKH
DRG. NO. : SAJADIYARI GUNDA-GAD-02A	SHEET :	SCALE : AS SHOWN
PROJ. NO. :	DATE : JAN. 2026	REVISION : R0

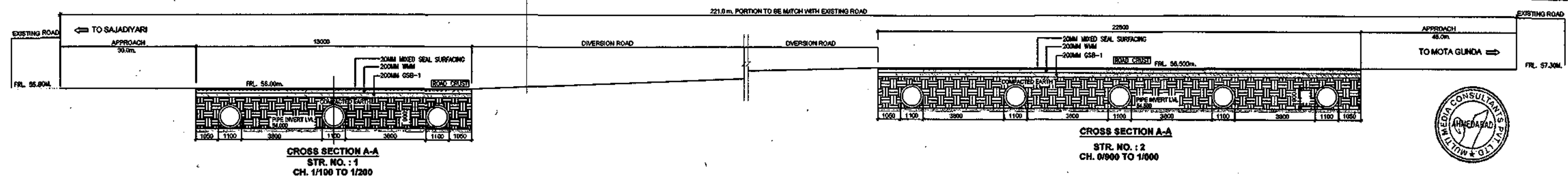


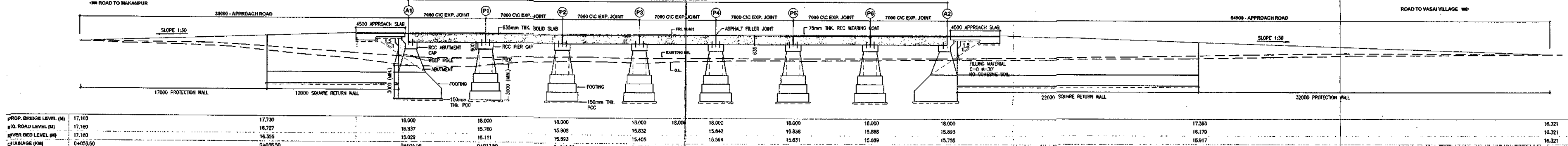
- NOTES FOR DIVERSION WORKS**
1. ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METER.
 2. DO NOT SCALE THIS DRAWING.
 3. BACK FILLING SHALL BE DONE WITH EARTH.
 4. THE R.C.C. PIPE SHALL BE NP-3 TYPE CONFIRMING TO IS:458:2003.
 5. DIVERSION ROAD WORK SHALL BE CARRIED OUT AS PER R&B GR NO. PRCH/10/2018/15/C.

GRADE TABLE FOR DIVERSION WORKS	
PCC GUARD STONE	= M:15
PCC LEVELING COURSE	= M:15

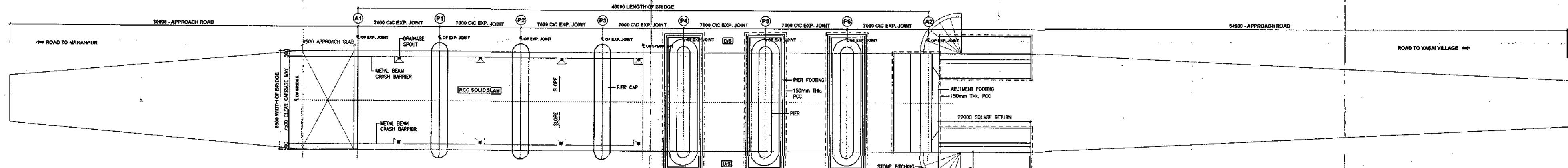
PROPOSED STR. DETAILS	
BOX CULVERT	
STR. NO.	: 2/2
SPAN	: 7X4.0X2.0
FRL	: 57.050

NO.	DATE	DESCRIPTION
PROJECT		
CONSTRUCTION OF BOX TYPE MINOR BRIDGE AT CH. 0/900 TO 1/000 AND 1/100 TO 1/200 ON SAJADIYALI GUNDA ROAD TAL. BHANWAD DIST. DEVBHUMI DWARKA		
CLIENT		
ROAD & BUILDING DEPARTMENT DEVBHUMI DWARKA PANCHAYAT DIVISION		
CONSULTANT		
Multi Media Consultants Pvt. Ltd. 401, Shivvelk Ship, Iskon Cross Road, S.G. Highway Ahmedabad - 380 054.		
TITLE		
GENERAL ARRANGEMENT DRAWING FOR PROPOSED DIVERSION AT CH. 0/900 TO 1/000 AND 1/100 TO 1/200 ON SAJADIYALI GUNDA ROAD		
DRAWN BY	CHECKED BY	APPROVED BY
HITENDRA YANKAN	CHIRUJIL PARIKH	APURVA PARIKH
DRG. NO. : SAJADIYALI GUNDA-GAD-03	SHEET : 1 of 1	SCALE : AS SHOWN
PROJ. NO. :	DATE : DEC. 2025	REVISION : R0

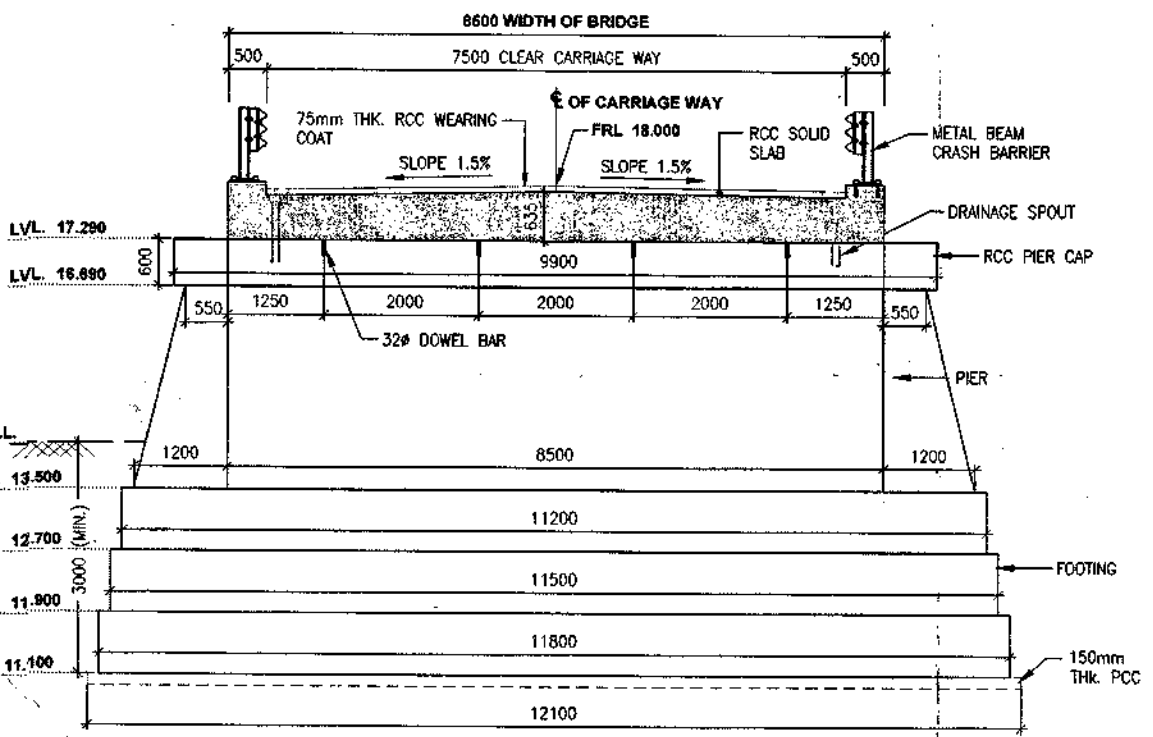




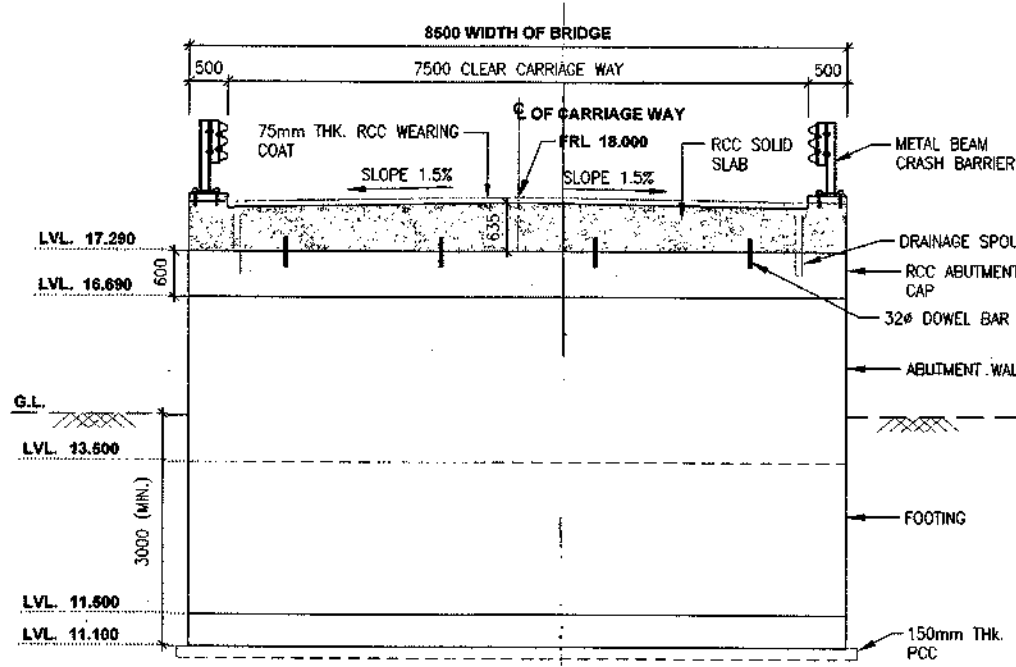
LONGITUDINAL SECTION
SCALE: 1:175



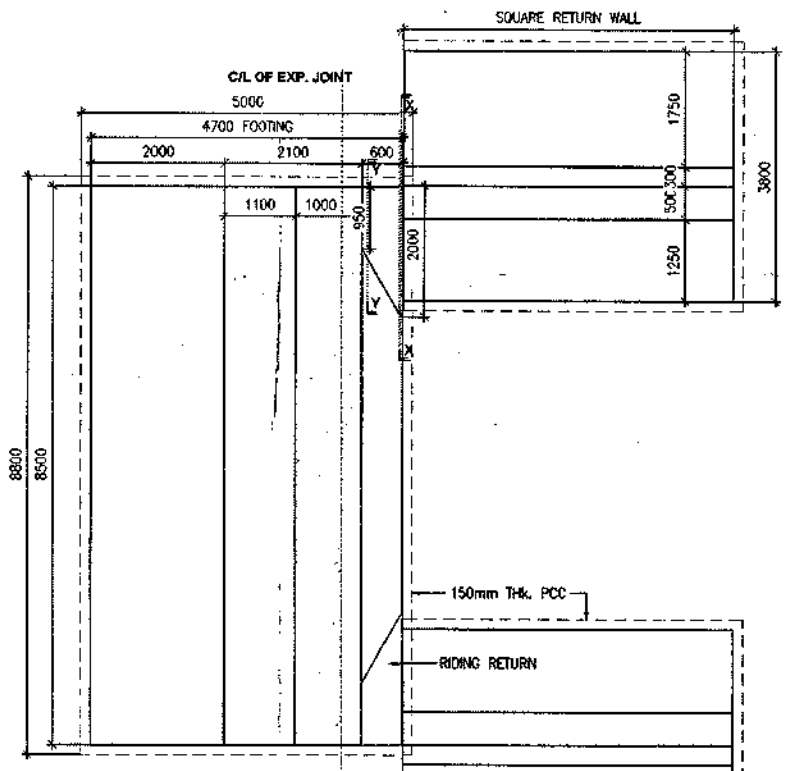
PLAN
SCALE: 1:175



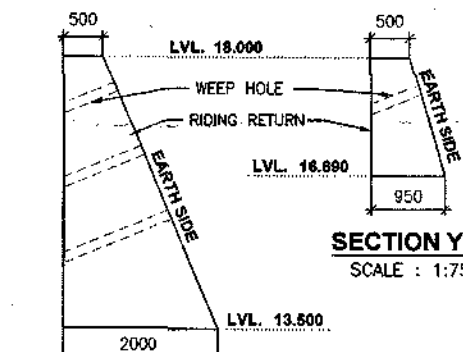
TYP. CROSS SECTION OF PIER
SCALE: 1:75



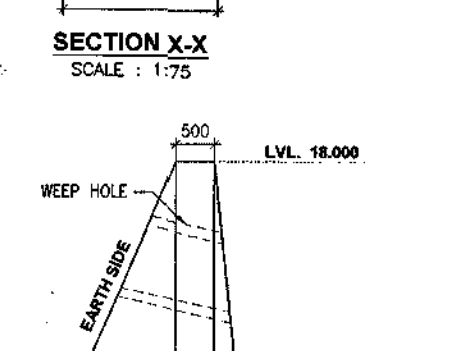
TYP. CROSS SECTION OF ABUTMENT
SCALE: 1:75



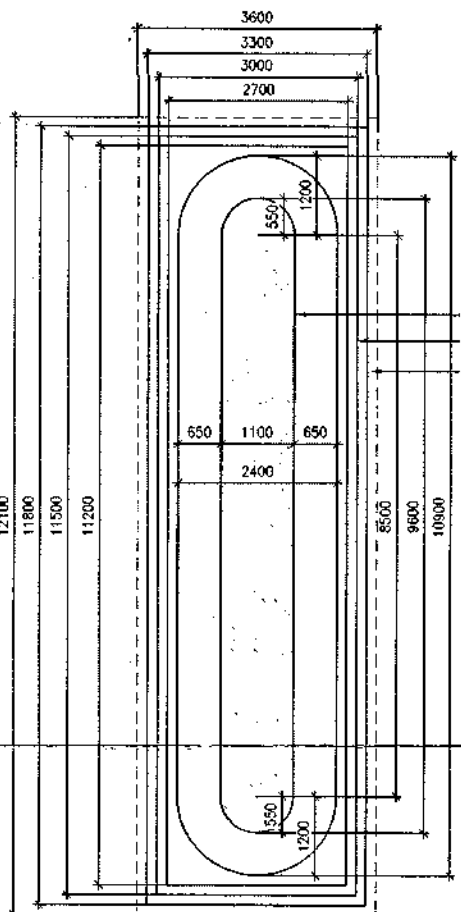
PLAN OF ABUTMENT
SCALE: 1:75



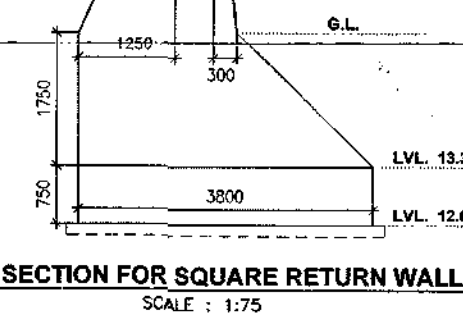
SECTION Y-Y
SCALE: 1:75



SECTION X-X
SCALE: 1:75

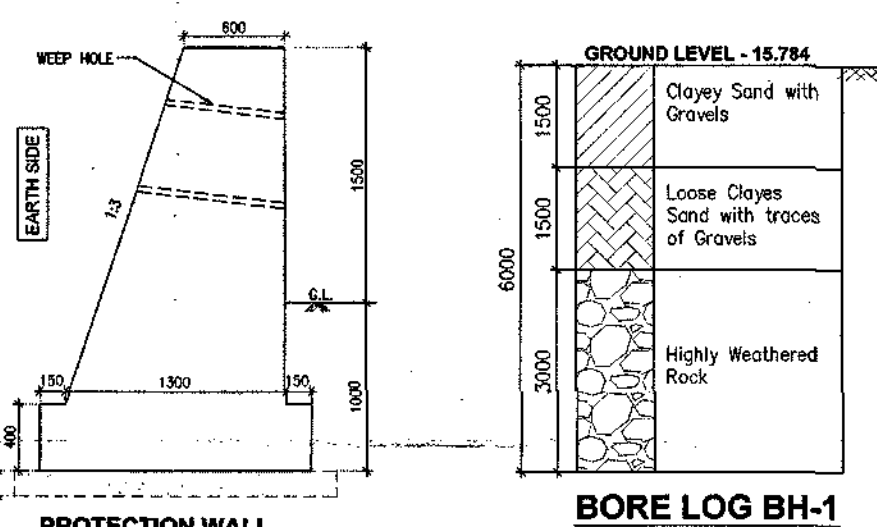


PLAN OF PIER
SCALE: 1:75



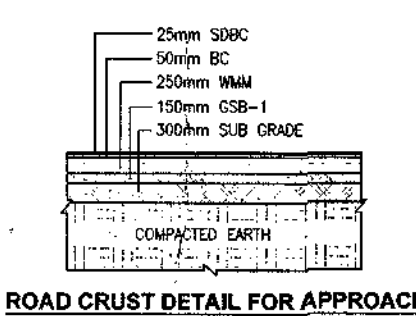
TYP. SECTION FOR SQUARE RETURN WALL
SCALE: 1:75

- NOTES**
1. ALL DIMENSIONS AND LEVELS ARE IN METER.
 2. DO NOT SCALE THIS DRAWING.
 3. ALL LEVELS AND DIMENSIONS SHOWN IN DRAWING ARE TENTATIVE AND SUBJECT TO CHANGE DURING DETAILED DESIGN.
 4. STEEL **F_y 500 D** (WITH FBEC) (TMT) CONFORMING TO IS 1786 INCLUDING LATEST AMENDMENT.
 5. DURING ACTUAL EXECUTION IF THE FOUNDATION LEVELS OF PIERS, ABUTMENTS, RETURNS ETC. ARE DIFFERENT THAN THOSE SHOWN IN THE DRAWING, THE SECTION OF THE SAME SHALL BE MODIFIED ACCORDING TO THE ACTUAL HEIGHTS ACCORDING TO THEIR DESIGN REQUIREMENTS.
 6. WEEP HOLES WITH BACKING OF FILTER MATERIAL SHALL BE PROVIDED BEHIND ABUTMENTS AND RETURNS ON ACCORDANCE WITH APPENDIX-6 OF IRC-78:2014.
 7. IN CASE OF PLAIN CEMENT CONCRETE SUB STRUCTURE, SURFACE REINFORCEMENT @ 10 KG/MT SHALL BE PROVIDED ON ALL EXPOSED FACE.
 8. A CLEAR VERTICAL CONSTRUCTION JOINT SHALL BE PROVIDED AT THE JUNCTION OF ABUTMENT AND RETURNS AND AT VERTICAL SECTIONS WHERE THERE IS STEPPING UP IN FOUNDATION LEVELS.
 9. IN BRIDGE THE DRAINAGE SPOUT AT EVERY 5.0m INTERVAL SHALL BE PROVIDED IN VIADUCT PORTION.
 10. THE PROPOSED STRUCTURE IS DESIGNED FOR **TWO** LANE LIVE LOAD LOADING AS PER COMBINATIONS OF IRC CLASS 70R AND IRC CLASS A LOADING IN ACCORDANCE WITH TABLE-6 OF IRC 6:2017.
 11. SEISMIC ZONE-III WILL BE CONSIDERED FOR DETAIL DESIGN AS PER LATEST CODAL PROVISION.
 12. WIND SPEED 50.00m/SECOND AND EXPOSURE CONDITION - SEVERE.
 13. FOR SOIL REPORT REFER SHREENATH LABORATORIES & CONSULTANTS PVT. LTD., JOB NO. MT-4055 DATED 16-10-2025.



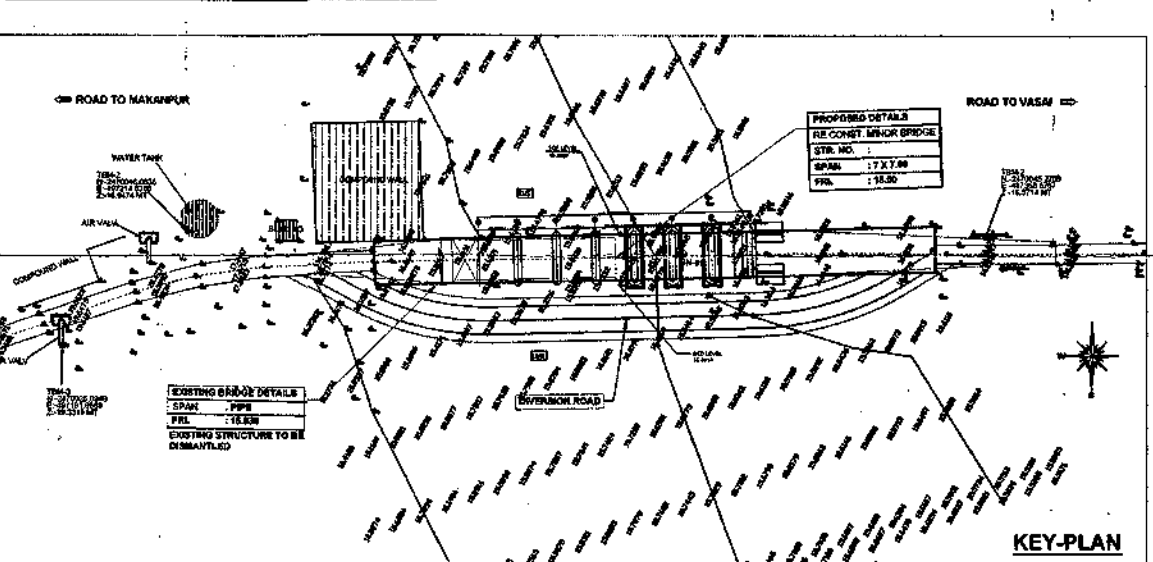
PROTECTION WALL
SCALE: 1:30

BORE LOG BH-1



ROAD CRUST DETAIL FOR APPROACH

SALIENT HYDRAULIC FEATURES
 DESIGN DISCHARGE = 135.40 CUMECs
 H.F.L. = RL. 16.190 M
 A.H.F.L. = RL. 16.344 M
 OBSTRUCTED VELOCITY OF FLOW = 3.483 M/SEC.
 PERCENTAGE OBSTRUCTION = 18.25 %



KEY-PLAN

GRADE OF CONCRETE	
CC FOOTING	M:30
CC PIER / ABUTMENT	M:30
CC RIDING RETURN	M:30
CC TOE WALL	M:30
CC SQUARE RETURN WALL	M:30
CC PROTECTION WALL	M:30
RCC SOLID SLAB	M:30
RCC PIER CAP/ABUT. CAP	M:30
RCC APPROACH SLAB	M:30
RCC WEARING COAT	M:30
RCC KERB	M:30
LEVELING COURSE/ PCC	M:15

NO	DATE	DESCRIPTION
1		PROJECT
2		CONSTRUCTION OF NEW MINOR BRIDGE ON VASAI-MAKANPUR ROAD AT CH. 3/80 TO 4/00. TA- DWARKA, DIST.- DEVBHUMI DWARKA
3		CLIENT
4		ROAD & BUILDING DEPARTMENT DEVBHUMI DWARKA PANCHAYAT DIVISION
5		CONSULTANT
6		Multi Media Consultants Pvt. Ltd. 401, Shivaji, Ship, Ikon, Cross Road, S.G. Highway Ahmedabad - 380 054.
7		TITLE
8		GENERAL ARRANGEMENT DRAWING FOR MINOR BRIDGE
9		DRAWN BY
10		CHECKED BY
11		APPROVED BY
12		DRG. NO. : MAKANPUR-MNB-GAD-01
13		SHEET: 1 of 1
14		SCALE: AS SHOWN
15		PROJ. NO. :
16		DATE: NOV. 2025
17		REVISION: R0

GOVERNMENT OF GUJARAT
ROADS & BUILDINGS DEPARTMENT



सत्यमेव जयते

TENDER PAPER

NAME OF WORK:

RE-CONSTRUCTION OF MINOR BRIDGES, SLAB DRAINS, BOX CULVERTS & PIPE CULVERTS AT VARIOUS LOCATIONS IN DEV-BHOOMI DWARKA DISTRICT (PANCHAYAT) UNDER MMGSY, IN THE STATE OF GUJARAT. (PACKAGE - 2)

NOT PUT TO TENDER

**Executive Engineer
R&B Panchayat Division,
Devbhumi Dwarka**



RE-CONSTRUCTION OF MINOR BRIDGES, SLAB DRAINS, BOX CULVERTS & PIPE CULVERTS AT VARIOUS LOCATIONS IN DEVBHUMI DWARKA DISTRICT (PANCHAYAT) UNDER MMGSY, IN THE STATE OF GUJARAT. (PACKAGE - 2)

BILL OF QUANTITIES (BOQ)

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
1	Clearing and grubbing road land including uprooting rank vegetation grass bushes, shrubs, sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) By mechanical means in area of light jungle.	2.24	One Hect.	28,455.09	63,739.41
2	Demarcation of road alignment including marking out road line by providing and fixing wooden pegs or steel rod of required size at every 25 M to 50 M. including excavating trenches on both sides of 0.30 m. x 0.30M. including supplying of labours and all materials for every work etc complete.	0.56	One Km.	2,706.50	1,515.64
3	Portable Barricade in Construction Zone (Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 450, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001)	204.00	One No.	3,035.05	6,19,150.20

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
4	Diversion of water course, providing cofferdam and bund or island as may be necessary for foundation and maintaining the same for the period as may be necessary.	18.00	One No.	50,000.00	9,00,000.00
5	Earthwork for embankment including breaking clods, dressing with all lead and lift (Excluding watering and consolidation) (A) Selected soil should be From borrow area with all lead and lift and should have CBR not less than 6.00%.	4436.80	One Cum	160.76	7,13,263.76
6	Earthwork for embankment including breaking clods, dressing with all lead and lift and including watering rolling and consolidation of subgrade in layers at O.M.C. to required dry density including filling the depression which occur during the process using power roller 8T to 10T.(E) From Borrow area including all lead & lift	13613.00	One Cum	177.91	24,21,893.85
7	Earthwork in cutting including preparing slope and camber staking or utilizing the cutting stuff in bank as directed upto 200 meters from the end of the cutting with all required lead and lift.(iii) hard Rock.	54.00	One Cum	584.59	31,567.86

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
8	WBM Grading-2 Providing, laying, spreading and compacting stone agg. Of 63mm to 45mm size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 KN in stage to proper grade and camber, applying and brooming, stone screening/binding material to fill-up the interstices of coarse agg., watering and compacting to the required density grading-2 as per Technical Specification Clause.405 By manual means.	346.90	One Cum	1,970.49	6,83,563.85
9	Rolling and Watering of earthwork with vibratory roller including filling in depression which occur during the process and as directed.	4172.80	One Cum	22.95	95,765.76
10	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. (B) Dense or hard soil.	1434.60	One Cum	253.88	3,64,216.25
11	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. (C) Hard Murrum	1284.30	One Cum	432.61	5,55,601.02
12	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. (D) Soft Rock	363.80	One Cum	301.84	1,09,809.39

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
13	Excavation for foundation upto 1.5m depth including sorting, out and stacking of useful materials and disposing of the excavated stuff upto all lead. (E) Hard Rock	248.60	One Cum	627.47	1,55,989.04
14	Excavation of foundation in Sand gravel clay soft soil and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed. Depth upto 3.00mt.	5182.20	One Cum	511.11	26,48,676.25
15	Excavation of foundation in hard murrum and boulders and very stiff or sticky clays and other similar strata including shorting out and strutting and dewatering as necessary and disposing of the excavated stuff as directed.	467.50	One Cum	611.32	2,85,792.10
16	Excavation in large boulders and soft rock by wedging including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed,	3444.50	One Cum	716.55	24,68,170.39
17	Excavation in hard rock by dry-wet blasting and chiselling including dewatering preparing foundation base by proper benching and stepping and disposing of the excavated stuff as directed (B) Blasting prohibited.	1652.60	One Cum	1,675.31	27,68,613.19

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
18	Providing and fixing Mild steel dowel bar of minimum 32mm dia. For anchoring by drilling holes in foundation strata including necessary bending, hooking of dowel bars and grouting the holes complete as per detailed drawing and as directed.	636.00	One Rmt.	450.07	2,86,242.23
19	Providing and laying rubble for apron (Each stone weighting not less than 40kg) including and packing and filling in the interstices with quarry spall.	88.70	One Cum	1,083.81	96,133.95
20	Providing and casting in situ ordinary cement concrete M-150 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	81.40	One Cum	3,715.62	3,02,451.47
21	Providing and casting in situ ordinary cement concrete M-150 mix and providing necessary pin headers including shuttering, scaffolding, laying vibrating, curing and finishing complete Without V-Grooves For all Height.	3853.10	One Cum	3,921.63	1,51,10,432.55
22	Providing and filling in foundation with ordinary cement concrete M-100 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	620.50	One Cum	3,345.58	20,75,932.39
23	Providing and filling in foundation with ordinary cement concrete M-150 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	1013.80	One Cum	3,715.63	37,66,904.38

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
24	Providing & laying rubble soling (hand packing) on prepared surface and filling interstice with sand including all material, spreading ,watering etc completed as directed.	194.00	One Cum	2,259.67	4,38,375.85
25	Providing and laying Rigid Flooring complete as per drawing and Technical specifications laid over cement concert bedding. (A) Rubble stone laid in cement mortar 1:3	115.00	One Cum	4,635.43	5,33,074.97
26	Providing & laying 22.5 cm thick dry rubble stone pitching on side slope on existing earthwork on murrum bed 7.50 cm thick & filling interstice with murrum & providing Flush pointing in CM 1:3 etc complete including curing & preparing slope in Earth work as directed.	856.00	One Sqm	745.57	6,38,210.92
27	Providing parapet of ordinary cement concrete M-200 as per detailed drawing with necessary reinforcement including shuttering laying vibrating and finishing to line and level complete (ii) cast in situ.	107.00	One Rmt.	1,082.18	1,15,793.26
28	Providing parapet of ordinary cement concrete M-30 as per detailed drawings with necessary reinforcement including, shuttering, laying vibrating and finishing to line and level complete.(ii) Cast in situ.	238.00	One Rmt.	1,217.96	2,89,874.32

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
29	Providing and casting in situ Controlled cement concrete M-200 for R.C.C. work in Piers, abutment, returns and riding returns as per drawing including centering, shuttering, scaffolding where necessary laying, vibrating curing and finishing complete (A) For all Height	711.10	One Cum	5,198.58	36,96,710.24
30	Providing and casting in situ Controlled cement concrete M-30 for C.C. work in Piers, abutment, returns and riding returns as per drawing including centering, shuttering, scaffolding where necessary laying, vibrating curing and finishing complete (A) For all Height	2372.00	One Cum	5,462.90	1,29,57,995.38
31	Providing and casting in situ Controlled Cement Concrete M-200 for R.C.C. Raft and cut-off walls including necessary shuttering laying, vibrating ramming of curing complete.	92.60	One Cum	4,591.53	4,25,175.68
32	Providing and casting in situ Ordinary cement concrete M-200 for C.C. Toe Wall and Curtain walls including necessary shuttering laying, vibrating, ramming and curing complete.	330.00	One Cum	4,142.22	13,66,933.22
33	Providing and casting in situ Controlled Cement Concrete M-250 for R.C.C. Raft and cut-off walls including necessary shuttering laying, vibrating ramming of curing complete.	95.20	One Cum	4,697.25	4,47,178.20

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
34	Providing and casting in situ Controlled Cement Concrete M-30 for R.C.C. Raft and cut-off walls including necessary shuttering laying, vibrating ramming of curing complete.	3064.00	One Cum	4,855.85	1,48,78,318.12
35	Providing and casting in situ Controlled Cement concrete M 20 mix for R.C.C. works in pier cap, abutment cap, and dirt wall including controlled cement concrete M 25 bed block or pedestals for required size below bearings as per detailed drawings, centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete.	20.20	One Cum	5,278.54	1,06,626.51
36	Providing and casting in situ Controlled Cement concrete M 30 mix for R.C.C. works in pier cap, abutment cap, and dirt wall including controlled cement concrete M 35 bed block or pedestals for required size below bearings as per detailed drawings, centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete.	192.00	One Cum	5,542.86	10,64,229.09
37	Providing and casting in situ Controlled cement concrete M 25 for R.C.C. Solid slab including centering, scaffolding, curing and finishing complete.	167.90	One Cum	5,256.06	8,82,492.47
38	Providing and casting in situ Controlled cement concrete M 30 for R.C.C. Solid slab including centering, scaffolding, curing and finishing complete.	1068.00	One Cum	5,890.42	62,90,969.35

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
39	Providing and casting in situ Controlled cement concrete- M-200 for average 75/150mm thick wearing coat laid as directed including tamping, vibrating, finishing, curing and filling in joints with bitumen complete.	372.70	One Cum	5,271.78	19,64,792.41
40	Providing and casting in situ Controlled cement concrete- M-30 for average 75mm thick wearing coat laid as directed including tamping, vibrating, finishing, curing and filling in joints with bitumen complete.	168.50	One Cum	5,536.10	9,32,833.18
41	Providing and casting in situ Controlled cement concrete- M-200 mix for Approach slab including formwork, curing and finishing complete.	23.60	One Cum	5,129.95	1,21,066.82
42	Providing and casting in situ Controlled cement concrete- M-250 mix for Approach slab including formwork, curing and finishing complete.	15.80	One Cum	5,235.67	82,723.59
43	Providing and casting in situ Controlled cement concrete- M-30 mix for Approach slab including formwork, curing and finishing complete.	199.00	One Cum	5,394.27	10,73,459.50
44	Providing and casting in situ Controlled cement concrete- M-20 mix for kerbs/Kerb blocks including formwork, curing and finishing complete.	9.70	One Cum	4,842.86	46,975.74
45	Providing and casting in situ Controlled cement concrete- M-30 mix for kerbs/Kerb blocks including formwork, curing and finishing complete.	192.00	One Cum	5,107.19	9,80,580.36

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
46	Providing and laying weep hole in Abutment and returns by using A.C pipe of 100mm. Incl. fixing in proper grade and jointing the complete as per detailed specification.	2056.00	One No	86.70	1,78,245.61
47	Providing and laying filter media 600mm. thick directed at the back of abutments, returns and wing walls as per detailed specifications.	1424.10	One Sqm	1,239.35	17,64,959.22
48	Providing and filling sand behind abutments and between riding return, square return in layers as directed.	2611.00	One Cum	504.42	13,17,049.43
49	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for anchorage in fixed end as per detailed drawings including cutting bending and welding complete.	12.00	One No	341.28	4,095.36
50	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for anchorage in free end as per detailed drawings including cutting bending and welding complete.	24.00	One No	424.88	10,197.07
51	Providing and laying in Position FE -500/550D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings. For the RCC Raft footing, Open Footing.	29.30	One MT	73,858.69	21,64,059.74

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
52	Providing and laying in Position FE -500/500D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Piers (B) Abutments (C) Returns (D) Walls etc.	77.170	One MT	73,858.69	56,99,675.29
53	Providing and laying in Position FE -500D/550D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Pier cap (B) Abutment cap & Dirt walls.	17.900	One MT	73,858.69	13,22,070.61
54	Providing and laying in Position FE -500D/550D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Solid slab	107.700	One MT	73,243.02	78,88,273.13
55	Providing and Fixing in position FE-500/500D TMT bar reinforcement including cutting, bending, hooking, and tying complete as per detailed drawing (A)RCC kerb (B) RCC Footpath (B) RCC Solid Slab/ App. Slab/ Wearing coat.	75.680	One MT	73,243.01	55,43,031.31
56	Providing and Fixing in position FE-500D/550D TMT bar reinforcement including cutting, bending, hooking, and tying complete as per detailed drawing (A)RCC kerb (B) RCC Footpath (C) RCC App. Slab (D) Wearing coat.	16.000	One MT	73,243.02	11,71,888.29

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
57	Providing fusion bonded Epoxy coating not less than 175 micron thickness and up to 300 micron to reinforcement bars as per IS-13620-1993/ASTM-775 M including testing of coating at plant.	62.700	One MT	8,729.43	5,47,335.26
58	Providing 12mm. Thick Pre-moulded asphalt filler joints as per drawings	191.10	One Sqm	703.53	1,34,443.78
59	Providing G.I. 100mm. Diameter water spouts including necessary iron gratings as per drawings.	156.00	One No	536.03	83,620.07
60	Providing flood gauge marks on sub structure as per design including painting complete	60.30	One Rmt.	167.03	10,072.02
61	Painting Two Coats on New Concrete Surfaces (Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces) - For inner face of Kerb / Crash Barrier	1012.50	One Sqm	81.81	82,832.63
62	Filling available excavated earth (excluding rock) in trenches plinth sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering.	3578.70	One Cum	136.91	4,89,959.82
63	Numbering the CD work with approved paint including all materials for painting etc. complete.	2.00	One No	58.80	117.60

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
64	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (i) 600mm Dia.	45.00	One Rmt.	2,364.07	1,06,383.15
65	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (i) 900mm Dia.	217.50	One Rmt.	3,971.70	8,63,845.05
66	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (v) 900mm Dia.	471.00	One Rmt.	3,469.26	16,34,021.46

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
67	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (i) 1200mm Dia.	22.50	One Rmt.	6,032.33	1,35,727.43
68	Supplying and fixing reinforced concrete heavy duty nonpressure pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying (To level of slops of I.S. 458 / 1971 Class NP4 of following internal diameter. (vi) 1200 mm dia.	87.00	One Rmt.	6,621.26	5,76,049.36
69	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. Stone/Rubble masonry.	356.50	One Cum	409.21	1,45,885.05
70	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. RCC Work.	1168.70	One Cum	930.35	10,87,300.25
71	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. Structural Steel.	2.00	One MT	1,955.71	3,911.43
72	Dismantling G.I. Pipes G.S.W. Pipes and A.C Rain water pipes with fitting and clamps including stacking the materials with all lead and lift (for any of pipe)	60.00	One Rmt.	76.67	4,600.20

Sr. No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
73	Removing all type of Hume pipes and stacking including all lead of earthwork and dismantling of masonry works. (A) Up to 600 mm dia	138.00	One Rmt	183.16	25,276.56
74	Removing all type of Hume pipes and stacking including all lead of earthwork and dismantling of masonry works. (A) Above 900 mm dia	34.00	One Rmt	309.21	10,513.19
75	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. (A) CC Work	742.50	One Cum	630.24	4,67,953.20
76	Dismantling of Flexible Pavements (Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately) ii) By Mechanical means. A) Bituminous course	145.50	One Cum	403.75	58,745.35
77	Dismantling of Cement Concrete Pavement (Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately).	228.60	One Cum	744.37	1,70,162.98