GOVERNMENT OF MAHARASHTRA

PUBLIC WORKS DEPARTMENT

MUMBAI REGION

THANE (P.W.) CIRCLE, THANE

P

FORM

[VOLUME – II]

FOUR LANING OF WADA BHIWANDI ROAD SH NO. -35 (KM. 49/000 TO 89/070) & MANOR WADA ROAD SH NO. 34 (KM. 29/550 TO 53/800) IN TALUKA WADA / BHIWANDI / PALGHAR DIST THANE

EXECUTIVE ENGINEER
THANE (P.W.) DIVISION
THANE

Concessionaire

Engineer in Charge

INDEX

Name of Work :- **Four Laning of Wada Bhiwandi road SH. No. 35 (Km. 49/000 to 89/070) & Manor Wada road SH No. 34 (Km. 29/550 to 53/800) in Taluka Wada / Bhiwandi / Palghar Dist Thane .**

Concessionaire Engineer in Charge

Section – I

Issue Of Bid Documents

GOVERNMENT OF MAHARASHTRA

SECTION-I

ISSUE OF BID DOCUMENTS IN 3 SETS

Issued to Shri/ M/s._____

_____with reference to his/their application dated

_____ cost of bid document **Rs. 50,000/- (Rupees Fifty Thousand Only)** received vide money receipt No._____

dated _____.

Divisional Account officer

Thane (P.W.) Division
Thane.

DETAILS OF WORKS

Name of Work :- **Four Laning of Wada Bhiwandi road SH. No. 35 (Km. 49/000 to 89/070) & Manor Wada road SH No. 34 (Km. 29/550 to 53/800) in Taluka Wada / Bhiwandi / Palghar Dist Thane .**

Concessionaire

Engineer in Charge

Section – II

Notice Inviting Bid

GOVERNMENT OF MAHARASHTRA

NOTICE INVITING BID

Bid Notice in Short :-

Sr. No.	Name of work	Estimated cost of the project in Rupees	Bid Security in Rupees	Performance Security at the time of acceptance of bid in Rupees.	Cost of bid form(not refundable)	Period of Construction	Last date of issue of blank bid documents	Last date and time of receipt of bids
1.	Four Laning of Wada Bhiwandi road SH. No. 35 (Km. 49/000 to 89/070) & Manor Wada road SH No. 34 (Km. 29/550 to 53/800) in Taluka Wada / Bhiwandi / Palghar Dist Thane	280.000 crores	56.00 Lakhs (0.2 %)	840.00 lakhs (3 %)	50,000/-	24 Calendar Months		

Sale of Blank Bid Documents Dt. to
Validity of offer 180 Days

Pre bid conference will be held at the office of Chief Engineer P.W. Region Mumbai
On at 12.00 Hours.

Concessionaire

Engineer in Charge

Section – III

Invitation For Bids (IFB)

SECTION-III

Public Works Department

INVITATION FOR BIDS (IFB)

Sealed offers in the, prescribed form are invited by the government from the eligible bidders for the execution of the project on build operate and transfer (B.O.T.) basis (as defined in these documents and referred to as "the works") as per IFB. The works are detailed in Section-IV of this volume.

1.	**Name of Project**	:	**Four Laning of Wada Bhiwandi road SH. No. 35 (Km. 49/000 to 89/070) & Manor Wada road SH No. 34 (Km. 29/550 to 53/800) in Taluka Wada / Bhiwandi / Palghar Dist Thane .**
2.	**Cost of Project as estimated by the department**	:	**Rs. 28000.00 Lakhs**
3.	**Time limit for completion of work**	:	**24 Calendar Months**
4.	**Bid Security**	:	**Rs. 56.00 Lakhs.**
5.	**Bid Validity**	:	180 days from the date of opening of bid.
6.	**Sale of Blank Bid Form**	:	From to on all working days at **Office of the Executive Engineer, (P.W.) Division, Thane.** Tel. No. 022-25369293
7.	**Cost of Blank Form**	:	**Rs. 50,000/- (For 3 Sets)**
8.	**Submission of completed Bid**	:	Upto **14.00** hours on at **Thane** in the office of the **Superintending Engineer, Thane (P.W.) Circle, Thane.** Tel. No. 022-25363241

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9.	**Pre-bid Conference**	:	On at **12.00** hours in the office of **Chief Engineer P.W. Region, Merzban Rd., Fort Mumbai** Tel. No.**022-22071594**
10.	**Date, time and Place of Opening of Bid**	:	At **15.00** hours on **if possible at Office of the Superintending Engineer, Thane (P.W.) Circle, Thane.**

Note :- i) Right to revise or amend the bid documents fully or partly, prior to the date notified for submission of offer is reserved. commissions, errors, deviations and / or amendments to Bid documents if any, shall be communicated in the form of corrigenda or by common sets of deviation or by letters as may be considered suitable.

ii) Government reserves right to accept or reject any bid or all bids without assigning any reasons whatsoever.

Address for Correspondence	:	**Executive Engineer,** **Thane (P.W.) Division,** **Station Road, Thane.** **Pin - 400 601.** E-mail-eethn@mahapwd.com Fax 022-25377240 Telephone No. 022-25369293

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Section - IV

Scope Of Work

SECTION-IV

PROJECT

1. Introduction :- Manor Wada road SH 34 Km..29/550 to 53/800 is part length of Palghar Manor Wada road SH-34. It starts at Manor on Mumbai – Ahmedabad road (N.H.No.8) and ends at Wada Junction. Wada Bhiwandi road SH 35 Km..49/000 to 89/070 is part length of Jawhar Wada Bhiwandi road SH-35. It starts at Wada and ends at Bhiwandi Junction. It is important road connecting N.H.8 and N.H.3. It carries heavy traffic plying from N.H.8 to Kudus industrial area, Shortest route to N.H.-3,N.H.-4, N.H.-17 Nhavasheva harbour. The total length of road from Manor- Wada- Bhiwandi is 64.32 Kms.

2. Existing Road :-. **Section–I Manor Wada road SH-34 (Km.29/550 to 53/800)** :- The carriageway width of existing road is 7.00 metre, 2 lane carriageway with black topped surface and formation width is 11.00 mt. There are 55 No. of H.P. Drains, 8 Nos of slab drains, 7 Nos. of minor bridges, 2 Nos major bridges.The total length of road is 24.25 Kms.

Section–II Wada Bhiwandi road SH-35 (Km.49/000 to 89/070) :- The carriageway width of existing road is 7.00 metres, 2 lane carriageway with black topped surface and formation width is 11.00 mt. There are 41 No. of H.P. Drains, 6 Nos of slab drains, 7 Nos. of minor bridges, 2 Nos major bridges. The total length of road is 40.07 Kms.

3. Importance of the Road :- This is an important link connecting N.H.-8 to N.H.-3.The Government of Maharastra has declared the Wada taluka as a" D Plus' Zone. Hence there is huge industrial area developed in Wada taluka ,Mostly around Kudus Village.Therefore the heavy loaded vehicles are plying on this road. This is the shortest route connecting from N.H.-8 to N.H.-3, N.H.-4, NhavaSeva harbour and N.H.-17.

4. Traffic Intensity :- As per August.-2008 traffic census, the traffic intensity on following traffic counts posts are as below.

1) Sapanegaon,-Km.48/800
(Manor Wada road SH-34) – 11697 P.C.U.

Concessionaire Engineer in Charge

2) Kawad-Km.83/870
(Wada Bhiwandi road SH-35)-21707 P.C.U.

Traffic intensity given above is for guidance only. The concessionaire should carry his own traffic survey. No claim on this account will be entertained.

5. Alignment and Location :-

The index plan of project is given in this volume. The alignment shall be in confirmity with this alignment. It shall fulfill I.R.C. guidelines about geometrics.

6. Scope

The B.O.T. project consists of Widening of existing two lane Wada Bhiwandi road SH. No. 35 (Km. 49/000 to 89/070) & Manor Wada road SH No. 34 (Km. 29/550 to 53/800) to four lane in Taluka Wada / Bhiwandi / Palghar Dist Thane. The project is proposed to be executed in single phase.Concessinare are requsted to submit proposals on B.O.T. basis on their own design for the following works.

The broad provisions which are to be made in the project are enumerated as below.

The crust details given below and shown in C/S details (Volume-IV) are minimum required and indicative only. The concessionaires are requested to visit the project site and collect all required information, data, traffic details to frame the proposal.

The project is to be executed in single phases as belows

A) Section-I Manor Wada road SH-34 Km.29/550 to 53/800 .

1) Widening of existing two lane carriageway (7.00 metres) to four lane carriageway (2 x 7.50 metres) with 2.00 metres median verge with bituminous treatment. The 1.50 metre paved and 1.00 metre hard murum side shoulder is to be provided on either side of carriageway. The crust shall be designed for widened portion by the concessionaire as per latest edition of relevant I.R.C. codes and other codes. However the following minimum provisions shall be given for widened portion.

Concessionaire

Engineer in Charge

i) **Earthwork :-** 95 % P.D. earthwork as per requirement for embankment height (Width of road as per typical cross section given on Page No.81 to 82 of Volume-IV.)

ii) **Earthwork :-** 100 % P.D.earthwork, 0.50 metre thick as sub base (Width of road as per typical cross section given on Page No.81 to 84 of Volume-IV.).

iii) **Granular Sub-Base :-** Two layers of 130 mm. compacted thickness of each layer (260 mm.total compacted thickness) with mechanical mixing and spreading with motor grader and compaction with vibratory roller.

iv) **Wet Mix Macadam :-** Two layers of 125 mm. compacted thickness of each layer (250 mm. total compacted thickness) with mechanical mixing, laying with paver finisher and compaction with vibratory roller.

v) **Bituminous Macadam :-** Hot Mix Hot Laid Bituminous Macadam of 65 mm compacted thickness with minimum 3.3 % bitumen content (of 60/70 grade bitumen) over existing B.T. road with required tack coat , laying with sensor paver finisher and compaction with vibratory roller.

vi) **Dence Bituminous Macadam :-**
i) Hot Mix Hot Laid Dense Bituminous Macadam of 65 mm compacted thickness with minimum 4.25 % bitumen content (of 30/40 grade of bitumen)over existing B.T. road with required tack coat and laying with paver finisher and compaction with vibrarory roller.
ii) Two layers of Hot Mix Hot Laid Dense Bituminous Macadam with 65 mm. compacted thickness of each layer (130 mm. compacted thickness with minimum 4.25 % bitumen content (of 30/40 grade of bitumen)over widened road with required tack coat , laying with paver finisher and compaction with vibratory roller.

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vii) **Bituminous concrete** :- Hot Mix Hot Laid Bituminous Concrete of 40 mm compacted thickness with minimum 5.00 % bitumen content (of 30/40 grade of bitumen)for full width with required tack coat, laying with paver finisher and compaction with vibratory roller.

viii) **Side Shoulder** :- i) 1.50 metre wide paved side shoulder with 150 mm. thick G.S.B., 200 mm. thick W.M.M., 20 mm. thick bituminous carpet with required tack coat and liquid seal coat. (30/40 grade of bitumen for carpet and 60/70 grade bitumen for liquid seal coat) ii) 1.00 metre wide hard murum side shoulder on bothsides of the road is proposed. 5% camber shall be provided to the side shoulder.

ix) **Median Verge** :- The median verge comprises of 2 kerb stones as shown in drawing on page No.88 of volume IV. Top width of kerb stones 175 mm, bottom width 225 mm, in M-20 grade concrete. 225 mm above Road Top Level shall be suitably fixed. The space between 2 Kerb shall be filled with 15 cm M-15 grade concrete at bottom and remaining space with Granular Sub-Base. The top surface of median verge shall be sealed by providing bituminous treatment. The width of median verge is 2.00 metres.The length of median verge is 24.25 Kms.

2) Provisions For Entire Carriageway Width :- (as per typical cross section shown in Page No.81 to 84 of volume IV). Following minimum treatment shall be given. However the bituminous overlay shall be designed as per Benkleman Beam method. The camber shall be provided 2.50 % for B.T. surfaces. The quantities required for super elevation, camber, grade corrections shall be provided by the concessionaire and should asses the quantity required for the grade correction confirming to I.R.C. specifications. Concessionaire shall make his own assessment for quantities required for longitudinal and cross profile. No any extra

additional payment will be made nor any claim will be entertained on this ground that there has been variation in the quantities.

i) **Bituminious Macadam** :- Hot Mix Hot Laid, Bituminous Macadam of 65 mm compacted thickness with minimum 3.3 % bitumen (of 60/70 grade bitumen) with required tack coat laying with sensor paver and compaction with vibratory roller over existing road surface. The job mix shall be got approved from the Engineer-in- Incharge.

ii) **Dense Bituminous Macadam** :- i)Hot Mix Hot Laid, Dense Bituminous Macadam of 65 mm compacted thickness with minimum 4.25 % bitumen content (of 30/40 grade bitumen) with required tack coat over existing B.T. road. ii) Two layers of Hot Mix Hot Laid Dense Bituminous Macadam (total 130 mm. compacted thickness with minimum 4.25 % bitumen content (of 30/40 grade bitumen) over widened road with required tack coat , laying with sensor paver finisher and compaction with vibratory roller. The job mix shall be got approved from Engineer-in-charge.

iii) **Bituminous Concrete** :- Hot Mix Hot Laid, Bituminous concrete, 40 mm compacted thickness with minimum 5.0 % bitumen (of 30/40 grade bitumen) with required tack coat laying with sensor paver and compaction with vibratory roller. The job mix shall be got approved from Engineer-in-charge.

iv) **Side shoulders**:- i) 1.50 metre wide paved side shoulder with 150 mm. thick G.S.B., 200 mm. thick W.M.M., 20 mm. thick bituminous carpet with required tack coat and with liquid seal coat. ii) 1.00 metre wide hard murum side shoulder on bothside. 5% camber shall be provided for the side shoulers.

v) **Median Verge** :- The median verge comprises of 2 kerb stones as shown in drawing on page No. 88 of volume IV.

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Top width of kerb stones 175 mm, bottom width 225 mm, in M-20 grade concrete. 225 mm above Road Top Level shall be suitably fixed. The space between 2 Kerb shall be filled with 15 cm M-15 grade concrete at bottom and remaining space with Granular Sub-Base. The top surface of median verge shall be sealed by providing bituminous treatment. The width of median verge is 2.00 metres.The length of median verge is 24.25 Kms.

vi) **CC Retaining wall/Toe Wall** :- Construction of cement concrete retaining wall/toe wall having 5.00 meter height for 400 m. long high embankment of Dehraja river and Pinjal river bridge approaches on both sides and 3.00 meter height for 200m. long high embankment of road portion as per requirement is to be constructed. . The quantity of retaining / toe wall may vary as per topography and site condition. The height given in cross section is only indicative. No extra payment will be made nor any claim will be entertained due to variation in section.

vii) **Builtup gutters:-** The builtup gutters shall be provided as per requirement of site conditions but for a minimum length as shown below. Built up concrete gutter is to be constructed along the edge of roadway on both sides of road.

Statement of Builtup Gutters.

Location	LHS		RHS	=	TOTAL
Pali village	150	+	150	=	300.00
	100	+	100	=	200.00
	100	+	100	=	200.00
	150	+	150	=	300.00
	100	+	100	=	200.00
Wada	200	+	200	=	400.00
			Total Length	=	**1600.00 Rmt.**

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The typical cross section for gutter in C.C. M-20 grade as shown in the drawing on Page No.86 of Volume- IV may be followed. The bed slopes for the gutters shall be such to have smooth flow of water. The gutter shall be terminated to the nearest cross drain. The height of gutters may vary as per topography, RTL and the bed slope. The height given in cross section is only indicative. No extra payment will be made nor any claim will be entertained due to variation in section.

viii) **Widening of Existing H.P. Drains :-** There are total 55 existing H.P. Drains at locations as below. All existing H.P. Drains are proposed to be widened upto 27.50 metres.

Statement of C.D.Works				
Sr. No.	Existing Dia of Pipe	Total No. of H.P. Drains	Proposed Dia of pipe	No. of Rows
1	900 mm dia	38	900 mm dia	1 row
2	900 mm dia	4	900 mm dia	2 rows
3	600 mm dia	6	900 mm dia	1 row
4	1200 mm dia	3	1200 mm dia	1 row
5	1200 mm dia	2	1200 mm dia	2 rows
6	1200 mm dia	1	1200 mm dia	3 rows
7	1200 mm dia	1	1200 mm dia	5 rows

The existing head walls to be dismantled and widening is to be done by providing **NP-4 Hume pipes.** The soling, P.C.C. M-15 grade 15 cm thick below pipe etc. shall be suitably provided as per requirement. The height of head wall shall be decided as per the approved foundation strata and RTL. The foundation strata shall be got approved from Engineer-in-charge. The typical cross section given in the Annexure-I of Volume-IV are indicative. The working drawing shall be got approved from Engineer-in-charge during execution. The P.C.C. M-15 shall be used for construction of head wall. The cross section and length of head wall may vary as per site condition. No extra payment will be made nor any claim will be entertained due to variation in section and length of head wall.

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The required cushioning shall be provided above the pipes otherwise the pipes shall be embedded in concrete M-15 grade at top.

ix) **Widening of slab drains** :- There are total 8 Nos.of existing slab drains at locations as below. All existing drains are proposed to be widened to 22.00 metres. The typical drawings are attached on Page No.6 to 8 of Annexure-I of Volume-IV. The working drawing shall be got approved from Engineer-in-charge. The height given in drawings is only indicative, no extra payment shall be made nor any claim will be entertained for variation in sections.

Statement of Slab Drains

Sr. No.	Chainage	Length Meter	Existing Width	Proposed Width
1	34/440	8.00	11.00 Meter	22.00 meters
2	36/500	5.00	11.00 Meter	22.00 meters
3	36/965	8.00	11.00 Meter	22.00 meters
4	40/455	5.00	11.00 Meter	22.00 meters
5	40/485	3.00	11.00 Meter	22.00 meters
6	45/500	5.00	11.00 Meter	22.00 meters
7	45/930	8.00	11.00 Meter	22.00 meters
8	46/050	5.00	11.00 Meter	22.00 meters

The measurements of abutments and piers shall be adopted as per type design drawing. The abutment and piers shall rest on approved hard foundation. The P.C.C. M-15 grade 15 cm thick shall be provided for foundation concrete. The minimum grade of concrete shall be C.C. M-20 for abutments and piers and R.C.C. M-30 for slabs, caps, kerbs.

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x) **Widening of Minor Bridges :-** There are total 7 Nos of existing minor bridges at locations as below. All existing minor bridges are to be widened upto 22.00 metres. The typical drawings are attached on Page No.7 to 8 of Annexure-I of Volume-IV. The work drawings shall be got approved from Engineer-in-charge. The height and section given in drawings is only indicative, no extra payment shall be made nor any claim will be entertained for variation in sections and height.

Statement of Minor Bridges.

Sr. No.	Chainage	Length Meter	Existing Width	Proposed Width
1	35/410	7.00	11.00 Meters	22.00 Meters
2	42/485	9.00	11.00 Meters	22.00 Meters
3	44/380	15.00	11.00 Meters	22.00 Meters
4	49/510	12.00	11.00 Meters	22.00 Meters
5	51/755	5.00	11.00 Meters	22.00 Meters
6	52/030	5.00	11.00 Meters	22.00 Meters
7	52/750	5.00	11.00 Meters	22.00 Meters

The measurements of abutments and piers shall be adopted suitably as per type design drawing. The abutment and piers shall rest on approved hard foundation. The P.C.C. M-15 grade 15 cm thick shall be provided for foundation concrete. The minimum grade of concrete shall be C.C. M-20 for abutments and piers, returns and R.C.C. M-30 for slabs, caps, kerbs.

xi) **Construction of Major Bridges :-** There are total 2 Nos of existing major bridges at locations as below. 2 Nos. of major bridges are to be constructed parallel to the existing bridge for two lane

carriageway upto 7.50 metres width. The typical drawings are attached on Page No.9 of Annexure-I of Volume-IV. The working drawings shall be got approved from Engineer-in-charge. The height given in drawings is only indicative, no extra payment will be made nor any claim will be entertained for variation in sections.

Statement of Major Bridges.				
Sr. No.	Chainage	Span Arrangement	Proposed carriageway Width of new bridge	
1	Km.30/690 Dehraja river Bridge	5 span x 23.50 m.	7.50 Meters	
2	Km.47/840 Pinjal river Bridge	6 span x 18.00 m.	7.50 Meters	

The measurements of abutments and piers shall be adopted suitably as per approved design drawings. The abutment and piers shall rest on approved hard foundation. The grade of concrete and reinforcement shall be as per approved design and drawings.

xii) **Construction of Underpass /Flyover :-** Construction of Underpass / Flyover , 2 Nos. at Jawhar phata and Wada juction are to be constructed for carriageway including approaches. The working drawings shall be got approved from Engineer-in-charge.

The measurements of abutments, piers and box cells shall be adopted suitably as per approved design drawings. The abutment and piers shall rest on approved hard foundation.The grade of concrete and reinforcements for all components of structure shall be as per approved design and drawings.

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B) Section-II (a)Wada Bhiwandi road SH-35 Km.49/000 to 88/070 . (B.T.Carrigeway)

1) Widening of existing two lane carriageway (7.00 metres) to four lane carriageway (2 x 7.50 metres) with 2.00 metres median verge with bituminous treatment. The 1.50 metre paved and 1.00 metre hard murum side shoulder is to be provided on either side of carriageway. The crust shall be designed for widened portion by the concessionaire as per latest edition of relevant I.R.C. codes and other codes. However the following minimum provisions shall be given for widened portion.

i)Earthwork :- 95 % P.D. earthwork as per requirement for embankment height (Width of road as per typical cross section given in Page No.81 to 82 of Volume-IV.)

ii)Earthwork :- 100 % P.D.earthwork, 0.50 metre thick as sub base (Width of road as per typical cross section given in Page No. 81 to 82 of Volume-IV.).

iii)Granular Sub-Base :- Two layers of 130 mm. compacted thickness of each layer (260 mm.total compacted thickness) with mechanical mixing and spreading with motor grader and compaction with vibratory roller.

iv) Wet Mix Macadam :- Two layers of 125 mm. compacted thickness of each layer (250 mm. total compacted thickness) with mechanical mixing, laying with paver finisher and compaction with vibratory roller.

v)Bituminous Macadam :- Hot Mix Hot Laid Bituminous Macadam of 65 mm compacted thickness with minimum 3.3 % bitumen content (of 60/70 grade bitumen) over existing B.T. road with required tack coat , laying with sensor paver finisher and compaction with vibratory roller.

vi) Dence Bituminous Macadam :- i) Hot Mix Hot Laid Dense Bituminous Macadam of 65 mm compacted thickness with minimum 4.25 % bitumen content (of 30/40 grade of bitumen)over existing B.T. road with required tack coat and laying with paver finisher and compaction with vibrarory roller. ii) Two layers of Hot Mix Hot Laid Dense Bituminous Macadam with 65 mm. compacted thickness of each layer (130 mm. compacted

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thickness with minimum 4.25 % bitumen content (of 30/40 grade of bitumen)over widened road with required tack coat , laying with paver finisher and compaction with vibratory roller.

vii)Bituminous concrete :- Hot Mix Hot Laid Bituminous Concrete of 40 mm compacted thickness with minimum 5.00 % bitumen content (of 30/40 grade of bitumen)for full width with required tack coat, laying with paver finisher and compaction with vibratory roller.

viii)Side Shoulder :- i) 1.50 metre wide paved side shoulder with 150 mm. thick G.S.B., 200 mm. thick W.M.M., 20 mm. thick bituminous carpet with required tack coat and liquid seal coat. (30/40 grade of bitumen for carpet and 60/70 grade bitumen for liquid seal coat) ii) 1.00 metre wide hard murum side shoulder on bothsides of the road is proposed. 5% camber shall be provided to the side shoulder.

ix)Median Verge :- The median verge comprises of 2 kerb stones as shown in drawing on page No 88 of volume IV. Top width of kerb stones 175 mm, bottom width 225 mm, in M-20 grade concrete. 225 mm above Road Top Level shall be suitably fixed. The space between 2 Kerb shall be filled with 15 cm M-15 grade concrete at bottom and remaining space with Granular Sub-Base. The top surface of median verge shall be sealed by providing bituminous treatment. The width of median verge is 2.00 metres. The total length of median verge is 40.07 Kms.

2) Provisions For Entire Carriageway Width :- (as per typical cross section shown in Page No. to of volume IV). Following minimum treatment shall be given. However the bituminous overlay shall be designed as per Benkleman Beam method. The camber shall be provided 2.50 % for B.T. surfaces. The quantities required for super elevation, camber, grade corrections shall be provided by the concessionaire and should asses the

Concessionaire

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quantity required for the grade correction confirming to I.R.C. specifications. Concessionaire shall make his own assessment for quantities required for longitudinal and cross profile. No any extra additional payment will be made nor any claim will be entertained on this ground that there has been variation in the quantities.

i) **Bituminious Macadam** :- Hot Mix Hot Laid, Bituminous Macadam of 65 mm compacted thickness with minimum 3.3 % bitumen (of 60/70 grade bitumen) with required tack coat laying with sensor paver and compaction with vibratory roller over existing road surface. The job mix shall be got approved from Engineer-in-charge.

ii) **Dense Bituminous Macadam** :- Hot Mix Hot Laid, Dense Bituminous Macadam, of 65 mm compacted thickness with minimum 4.25 % bitumen content (of 30/40 grade bitumen) with required tack coat over existing B.T. road ii) Two layers of Hot Mix Hot Laid Dense Bituminous Macadam of 65 mm. compacted thickness (total 130 mm. compacted thickness) with minimum 4.25 % bitumen content (of 30/40 grade bitumen) over widened road with required tack coat, laying with sensor paver finisher and compaction with vibratory roller. The job mix shall be got approved from Engineer-in-charge.

iii) **Bituminous Concrete** :- Hot Mix Hot Laid, Bituminous concrete, 40 mm compacted thickness with minimum 5.0 % bitumen (of 30/40 grade bitumen) with required tack coat laying with sensor paver and compaction with vibratory roller. The job mix shall be got approved from Engineer-in-charge.

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iv) **Side shoulders:-** i) 1.50 metre wide paved side shoulder with 150 mm. thick G.S.B., 200 mm. thick W.M.M., 20 mm. thick bituminous carpet with required tack coat and with liquid seal coat. ii) 1.00 metre wide hard murum side shoulder on bothside. 5% camber shall be provided for the side shoulers.

v) **Median Verge** :- The median verge comprises of 2 kerb stones as shown in drawing on page No 88 of volume IV. Top width of kerb stones 175 mm, bottom width 225 mm, in M-20 grade concrete. 225 mm above Road Top Level shall be suitably fixed. The space between 2 Kerb shall be filled with 15 cm M-15 grade concrete at bottom and remaining space with Granular Sub-Base. The top surface of median verge shall be sealed by providing bituminous treatment. The width of median verge is 2.00 metres. The total length of median verge is 40.07 Kms.

vi) **CC Retaining wall/Toe Wall** :- Construction of cement concrete retaining wall/toe wall having 5.00 meter height for 400 m. long high embankment of Vaitarna river and Tansa river bridge approaches on both sides and 3.00 meter height for 200m. long high embankment of road portion as per requirement is to be constructed. .The quantity of retaining / toe wall may vary as per topography and site condition. The height given in cross section is only indicative. No extra payment will be made nor any claim will be entertained due to variation in section.

vii) **Builtup gutters:-** The builtup gutters shall be provided as per requirement of site conditions but for a minimum length as shown below.Built up concrete gutter is to be constructed along the edge of roadway on bothsides of road.

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Statement of Builtup Gutters.					
Location	LHS		RHS	=	TOTAL
Vadavali	50	+	50	=	100.00
Kudus	200	+	200	=	400.00
Kanchad phata	50	+	50	=	100.00
Nehroli	50	+	50	=	100.00
Shirishpada	50	+	50	=	100.00
Khandeshwarnaka	200	+	200	=	400.00
Ambadinaka	300	+	300	=	600.00
Dighashiphata	100	+	–	=	100.00
Varet	–	+	100	=	100.00
Asnoli	–	+	100	=	100.00
Dugad	100	+	100	=	200.00
Dhondawadavali	100	+	–	=	100.00
Mahapoli jn.	100	+	100	=	200.00
Lamaj	80	+	80	=	160.00
Angaon Jn.	100	+	100	=	200.00
Kawad Jn.	150	+	150	=	300.00
Shelar Jn.	500	+	500	=	1000.00
			Total Length	=	**4260.00 Rmt.**

The typical cross section for gutter in C.C. M-20 grade as shown in the drawing on Page No.86 of Volume- IV may be followed. The bed slopes for the gutters shall be such to have smooth flow of water. The gutter shall be terminated to the nearest cross drain. The height of gutters may vary as per topography, RTL and the bed slope. The height given in cross section is only indicative. No extra payment will be made nor any claim will be entertained due to variation in section.

viii) **Widening of Existing H.P. Drains :-** There are total 41 existing H.P. Drains at locations as below. All existing H.P. Drains are proposed to be widened upto 27.50 metres.

Statement of C.D.Works				
Sr. No.	**Existing Dia of Pipe**	**Total No. of H.P. Drains**	**Proposed Dia of pipe**	**No. of Rows**
1	600 mm dia	5	900 mm dia	1 row
2	600 mm dia	1	900 mm dia	2 rows
3	600 mm dia	1	900 mm dia	4 rows
4	300 mm dia	1	900 mm dia	1 row
5	900 mm dia	19	900 mm dia	1 row
6	900 mm dia	2	900 mm dia	2 rows

Concessionaire

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7	900 mm dia	3	900 mm dia	3 rows
8	900 mm dia	1	900 mm dia	4 row
9	900 mm dia	1	900 mm dia	6 row
10	1200 mm dia	3	1200 mm dia	1 rows
11	1200 mm dia	2	1200 mm dia	2 rows
12	1200 mm dia	1	1200 mm dia	3 row.
13	1200 mm dia	1	1200 mm dia	4 row

The existing head walls to be dismantled and widening is to be done by providing **NP-4 Hume pipes.** The soling, P.C.C. M-15 grade 15 cm thick below pipe etc. shall be suitably provided as per requirement. The height of head wall shall be decided as per the approved foundation strata and RTL. The foundation strata shall be got approved from Engineer-in-charge. The typical cross section given in Annexure-I of Volume-IV are indicative. The working drawing shall be got approved from Engineer-in-charge during execution. The P.C.C. M-15 shall be used for construction of head wall. The cross section and length of head wall may vary as per site condition. No extra payment will be made nor any claim will be entertained due to variation in section and length of head wall.

The required cushioning shall be provided above the pipes otherwise the pipes shall be embedded in concrete M-15 grade at top.

ix) **Widening of slab drains :-** There are total 6 Nos.of existing slab drains at locations as below. All existing drains are proposed to be widened to 22.00 metres. The typical drawings are attached on Page No.6 to 8 of Annexure-I of Volume-IV. The working drawing shall be got approved from Engineer-in-charge. The height given in drawings is only indicative, no extra payment shall be made nor any claim will be entertained for variation in sections.

Statement of Slab Drains

Sr. No.	Chainage	Length Meter	Existing Width	Proposed Width
1	58/100	3.00	11.00 Meter	22.00 meters
2	61/100	3.00	11.00 Meter	22.00 meters
3	66/900	5.00	11.00 Meter	22.00 meters

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4	83/400	2.00	11.00 Meter	22.00 meters
5	86/150	2.00	11.00 Meter	22.00 meters
6	87/100	2.00	11.00 Meter	22.00 meters

The measurements of abutments and piers shall be adopted as per type design drawing. The abutment and piers shall rest on approved hard foundation. The P.C.C. M-10 grade 15 cm thick shall be provided for foundation concrete. The minimum grade of concrete shall be C.C. M-20 for abutments and piers and R.C.C. M-30 for slabs, caps, kerbs.

x) **Widening of Minor Bridges :-** There are total 7 Nos of existing minor bridges at locations as below. All existing minor bridges are to be widened upto 22.00 metres. The typical drawings are attached on Page No.7 to 8 of Annexure-I of Volume-IV. The work drawings shall be got approved from Engineer-in-charge. The height and section given in drawings is only indicative, no extra payment shall be made nor any claim will be entertained for variation in sections and height.

Statement of Minor Bridges.

Sr. No.	Chainage	Length Meter	Existing Width	Proposed Width
1	49/700	12.00	11.00 Meters	22.00 Meters
2	54/800	18.00	11.00 Meters	22.00 Meters
3	74/800	45.00	11.00 Meters	22.00 Meters
4	77/300	12.00	11.00 Meters	22.00 Meters
5	81/540	18.00	11.00 Meters	22.00 Meters
6	80/700	20.00	11.00 Meters	22.00 Meters
7	85/900	10.00	11.00 Meters	22.00 Meters

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The measurements of abutments and piers shall be adopted suitably as per type design drawing. The abutment and piers shall rest on approved hard foundation. The P.C.C. M-15 grade 15 cm thick shall be provided for foundation concrete. The minimum grade of concrete shall be C.C. M-20 for abutments and piers, returns and R.C.C. M-30 for slabs, caps, kerbs.

xi) **Construction of Major Bridges :-** There are total 2 Nos of existing major bridges at locations as below. 2 Nos. of major bridges are to be constructed parallel to the existing bridge for two lane carriageway upto 7.50 metres width. The typical drawings are attached on Page No.9 of Annexure-I of Volume-IV. The working drawings shall be got approved from Engineer-in-charge. The height given in drawings is only indicative, no extra payment will be made nor any claim will be entertained for variation in sections.

Statement of Major Bridges.

Sr. No.	Chainage	Span Arrangement	Proposed carriageway Width of new bridge	
1	Km.51/800 Vaitarna river Bridge	7 span x 18.00 m.	7.50 Meters	
2	Km.69/500 Tansa river Bridge	7 span x 12.30 m.	7.50 Meters	

The measurements of abutments and piers shall be adopted suitably as per approved design drawings. The abutment and piers shall rest on approved hard foundation. The grade of concrete and reinforcement shall be as per approved design and drawings.

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xii) **Construction of Underpass /Flyover :-** Construction of Underpass / Flyover,1 Nos. at Ambadi juction is to be constructed for carriageway including approaches. The working drawings shall be got approved from Engineer-in-charge.

The measurements of abutments, piers and box cells shall be adopted suitably as per approved design drawings. The abutment and piers shall rest on approved hard foundation.The grade of concrete and reinforcements for all components of structure shall be as per approved design and drawings.

B)Section-II(b) Km.88/070 to 89/070 Wada Bhiwandi road SH-35 (Widening of road with cement concrete pavement)

1) Construction of road with cement concrete road pavement in Km.88/070 to 89/070 (1.00 km. length) 4 lane carriageway (2 carriageway of 7.50 metre each) is to be done. Typical drawing is attached on Page No. 83 of Volume-IV.

The Sub-Base shall be widened as shown in drawing. The measurements shown in cross section drawing are only indicative. The provisions for Sub-Base widening shall be same as above i) 95 % P.D. Earthwork. ii) Top 50 centimeter layer with 100 % P.D. Earthwork. for full width of 4 lane widening. The following treatment shall be given.

i) **Granular Sub-Base :-** Two layers of 75 mm. compacted thicknesssof each layers (total 150 mm.compacted thickness) with mechanical mixing and spreading with motor grader and compaction with vibratory roller.

ii) **Wet Mix Macadam :- 100** mm compacted thick with mechanical mixing, laying with paver finisher and compaction with vibratory roller.

iii) **Dry Lean Concrete :-** P.C.C. M-10 for 150 mm thick shall be provided as per approved design mix, using batching plant of appropriate capacity, transporting and laying with self propelled paver with electronic sensor device and compacting with vibratory roller of minimum 80-100 KN. static weight to give desired compacted density providing construction joints.

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iv) **Pavement Quality Concrete** :- P.C.C. M-40 grade 300 mm thick shall be provided as per approved design mix including 125 micron thick impermeable plastic sheet membrane over the surface to be covered using minimum cement content 400 kg per cubic metre of concrete with approved admixtures transporting mix with transit mixers and laying with self propelled slip form paving train of required capacity, having electronic sensor device. Providing and fixing dowels tie-bars, approved precompressed seals for joint filling and sealing all types of joints and finishing to the desired surface texture. 2% camber shall be provided.The treatment shall be designed and minimum shall be 300 mm.

B)Section-II(c) Wada Bhiwandi road SH-35 - Service road at Kudus 5.50 metre wide B.T.road of 300 metre length on bothside.

1) Construction of service road 1.50 lane carriageway (5.50 metres) on both side at **Kudus** with bituminous treatment. The 1.50 metre hard murum side shoulder is to be provided on either side of carriageway. The crust shall be designed for construction of road by the concessionaire as per latest edition of relevant I.R.C. codes and other codes. However the following minimum provisions shall be given for widened portion.

i) **Earthwork** :- 95 % P.D. earthwork as per requirement for embankment height (Width of road as per typical cross section given on Page No.84 of Volume-IV.)

ii) **Earthwork** :- 100 % P.D.earthwork, 0.50 metre thick as sub base (Width of road as per typical cross section given on Page No.84 of Volume-IV.).

iii) **Granular Sub-Base** :- Two layers of 75 mm. compacted thickness of each layer (150 mm.total compacted thickness) with mechanical mixing and spreading with motor grader and compaction with vibratory roller.

iv) **Wet Mix Macadam** :- Two layers of 125 mm. compacted thickness of each layer (250 mm. total compacted thickness) with mechanical mixing, laying with paver finisher and compaction with vibratory roller.

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v) **Bituminous Carpet :- 20** mm compacted thickness with bitumen content 159 kg per 100 sqm.(of 30/40 grade bitumen) with required tack coat , laying with paver finisher and compaction with vibratory roller.

vi) **Liquid seal coat :-** :- Providing liquid seal coat to B.T. surface with bitumen content 98 kg per 100 sqm (of 60/70 grade bitumen) including supplying all materials with all leads, preparing existing road surface , heating and applying bitumen, spreading chips,rolling etc. complete.

vii) **Side Shoulder :-** i) 1.50 metre wide hard murum side shoulder on bothside are proposed. 5% side slopes shall be provided to the side shoulders.

C) Construction of Toll Plaza :-The Concessionaire shall construct two New Toll Plaza as per model Toll Plaza booklet published by P.W.D. Govt. of Maharashtra each at **Kanchad village Ch.41/000 on Manor Wada road SH-34 and at Kawad village Ch. 83/870 on Wada Bhiwandi road SH-35 respectively** . Reference drawings are provided on Page No.43 to 79 of Volume-IV. Toll plaza shall be suitably staggered so that location of toll collection will be separated for up and down carriageway. The concessionaire shall make necessary arrangements for electrification of Toll Plaza, Water supply, sanitary facility, Telephone lines and Computerization at his own cost.

The boards are to be installed by the concessionaire of toll stations in bold lettersof such location visible to all drivers,consisting of following information.

1) Name of project.
2) Original cost of project.
3) Enterprenuers name and address.

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4) Govt. Notification No.

5) Toll rates.

6) Concession given by Gont. as per notification in toll rates.

7) Name of concern P.W. D ivision.

8) Contact person of department. (Name and telephone No.)

9) Contact person of Enterprenuer. (Name and telephone No.)

10) Nearest police station, distance and telephone No.

11) Nearest Govt. hospital, distance and telephone No.

12) Concession period as per approved tender (from....to ....)

The provision for C.C. Pavement shall be as per provions to be provided for the section II (b).

D) **Shifting of Electric Poles** :- Shifting of electrical poles along with supply lines transformers etc. for the **Section (I) Manor Wada road SH-34 Km.29/550 to 53/800 (about 75 Poles) and in Section(II) Wada Bhiwandi road SH-35 Km.49/000 to 89/070 (about 713 Poles)** is to be done. The concessionaire has to approach the concerned State Electricity officials of that area and fulfil all formalities of shifting the poles along with supply line and tranformers etc. like all permissions, payment for shifting electrical poles & get the work done. Necessary help if required will be given by Deptt. by writing letter to State Electricity Officials. The concessionaire shall pay Rs.358.54 lakhs or the amount quoted by concessionaire for shifting of electric poles along with supply lines and transformers whichever is more to Executive Engineer, P.W. Division, Thane, within one month from date of work order. The cost is provisional and the concession period shall be modified accordingly by one day for every rupees 4.03 lakhs increase or decrease in final quoted cost respectively.

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E) Tree Transplantation :- About 100 Nos. of existing trees in Section-I Manor Wada road SH-34 (Km.29/550 to 53/800) and about 758 Nos. of existing trees in Section-II Wada Bhiwandi road SH-35 (Km.49/000 to 89/070) are to be transplanted at the edge of road within R.O.W. as directed by Engineer-in-charge. The plantation shall be kept alive upto the end of concession period. Concessionaire have to approach the forest department to get the required permissions if necessary.Plantation of new trees at 5.00 m. centre to centre longitudinally on bothsides for entire length depending on availability of land within Right of way and site condition is to be carriedout as directed by Engineer-in Charge.

F) Junction Improvements :- The Concessionaire shall improve the junction locations a

1) Wada Junction at Ch.53/800 on Manor Wada road SH-34 and Ch. 49/000 on Wada Bhiwandi road SH-35.
2) Ambadi Junction on Wada Bhiwandi road.

The type drawings provided in Annexure-I Volume-IV are indicative. However the concessionaire shall survey the all junction locations and asses the quantities required for improvement

.G) Busbays :- 10 Nos. of busbays shall be constructed as per requirement as per standard drawing and design. The concessionaire shall survey the all bus stop locations and asses the quantities required for improvement

H) Road Furniture :- The concessionaire shall study in details all junctions,service along the road,villages, road alignment, structures etc and accordingly, provide road furniture such as retroreflectivesign boards,village name boards,cautionary and mandatory boards,informatory boards, prohibitory sign boards,gantries,retroreflective paintings,cat eyes, crash barriers,parapets,guard stones, 200 mts. stones, kilometer stones,and 5 th kilometer stones shall be

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provided for entire length of 64.32 kms.as per I.R.C. standard.. Lane marking shall be done as per relevant I.R.C. code for entire length of 64.32 kms.. The median verge shall be painted with Yellow / Black alternate strip with enamel paint The following types of road furnitures shall be provided as per I.R.C. standard with minimum numbers as below.

Section-I Manor Wada road SH-34 (Km.29/550 to 53/800)and Section –II Wada Bhiwandi road SH-35 (Km. 49/000 to 89/070). (Total length = 64.32 kms.)

1) Thermoplastic pavement marking = 305520.00 Rmt.
2) Information Boards = 260 Numbers.
3) Village name board = 40 Numbers.
4) Cautionary boards = 322 Numbers.
5) Prohibitory sign boards = 334 Numbers
6) Zebra paintings = 10570.00 Sqm.
7) Kilometre stones = 130 Numbers
8) 5th kilometre stones = 26 Numbers
9) 200 metre stones = 4872 Numbers
10) Guard stones (R.C.C.) = 51500 Numbers
11) Junction Boards. = 10 Numbers.
12) Route markers = 10 Numbers
13) .Anti crash barriers = 6500.00 Rmt.

In addition as per requirement boards may be provided by the concessionaire. The metal crash barrier about 6500 metres in length shall be provided where the height of embankment is more than 2.50 metre as per relavant I.R.C.code.The typical drawing is attached in Page No.90 of Volume-IV. Gantries shall be erected as requirement as per drawing at Page No.13 in Annexure-I of Volume-IV.

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I) Land Acquisition :- **The land aquisation for four laning of Manor Wada road SH. 34 Km.. 29/550 TO 53/800 and Wada Bhiwandi road SH.35 Km 49/000 to 89/070 (total length is 64.32 Kms.)** is necessary. The land acquisition procedure is in progress with Land Acquisition officer, District Collector office at Thane. The compensation amount for paying land owners is to be deposited towards Land acquisation officer. This cost is incorporated in project cost. The whole Land acquisition procedure is to be completed during the period of construction. The concessionaire to make arrangement to complete the land aquisition procedure.

The concessionaire shall deposit the land acquisition cost Rs.14.79 crores or the amount quoted by concessionaire for land acquisition whichever is more with Executive Engineer, Thane P.W. Dn. Thane. The cost is provisional and may be less or more depending upon final award decided by concerned land acquisition officer. The concession period shall be modified accordingly by one day for every Rupees.4.03 lakhs increase or decrease in final land acquisition cost respectively. Land aquisition shall be sole responsibility concessionaire and he shall get it done at his own risk and costin consultation with concern authourities. No extra claim due to delay in land aquisition shall be made nor any extra paymentwill be made on this accounts.

J) Alignment & Location :- The index plan of the project is given in this volume. The alignment proposed shall be in confirmity with this alignment. It shall fulfil I.R.C. guide lines about geometrics.

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K) MAINTENANCE & RENEWAL :- The concessionaire shall maintain the project viz routine maintainance and periodic maintainance throughout the concession period and extension thereof if any. The concessionaire will have to carry out renewal work after every six years and before handing over the road to Government (though handing over date fails within six years from last renewal work) with following provisions:-

A) 40 mm thick compacted bituminous concrete with minimum 5.0 % bitumen content of 30/40 grade bitumen in Section-I.Manor Wada road SH-34, Km.29/550 to 53/800 and Section –II Wada Bhiwandi road SH-35, Km. 49/000 to 89/070.Job mix for the same shall be got approved from Engineer-in-charge. The concessionaire shall maintain the road for next three years beyond the concession period.

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PROJECT SITE

Section – I Manor Wada road SH-34, Km. 29/550 to 53/800

The Project site starts from Manor at Km. 29/550 of SH-34 from NH-8 and ends at Wada at Km. 53/800. Approximately 20.00 meter wide land width of this road (10.00 mtr. from center of existing road on both sides) is under possession of P.W.D. Government of Maharastra. . For this project land acquisition is necessary for average 10.00 meter additional width.

After completion of all formalities of Bid procedure as mentioned in Volume I to IV the site will be handed over to the concessionaire

Section – II Wada Bhiwandi road SH-35, Km. 49/000 to 89/070

This site starts from Wada at Km. 49/000 SH-35 and ends at Bhiwandi at Km. 89/070. Approximately 20.00 meter wide land width of this road (10.00 mtr. From center of existing road on both sides) is under possession of P.W.D. Government of Maharastra. For this project land acquisition is necessary for average 10.00 meter additional width.

After completion of all formalities of Bid procedure as mentioned in Volume I to IV the site will be handed over to the concessionaire.

PROJECT FACILITY

1. **SITE OFFICE**

   Concessionaire shall construct at his own cost site office for use of P.W.Department with builtup area as per drawing attached in section V of Vol.IV with electric, water supply & sanitary facilities. The location, drawing & design of site office shall be got approved from Engineer-in-Charge. The office shall be adequately equipped with furniture & fittings including

Executive tables & Chairs, Conference table & Chairs, File cabinet, Wall display board, Storage cabinet etc. & with facilities as below. The site office shall be the property of the Government.

Sr.No.	Description of facilities	Quantity	Remark
1	A) Computer Pentium 4 with LCD Projector license copies of softwares required for documentation of project management	2 Nos.	To be handed over to Department after completion of project.
	B) Lap Top Pentium 4 & LCD Projector with licence copies of softwares required for documentation of project management	2 Nos.	To be handed over to Department after completion of project.
2	H.P. Laser Computer Printer (A4 size)	2 Nos.	To be handed over to Department after completion of project.
3	Cell phone facility	6 Nos.	During construction period limiting charges Rs. 1000/- per month per cell phone.
4	Inspection vehicle – Toyota Innova / Tavera	1 Nos.	To be handed over to Department within one month after issue of work order. The inspection vehicle shall be property of Government. During the construction period of this project the cost of vehicle maintenance limited to 3000 km per month shall be borne by the Concessionaire along with cost of fuel and driver and maintainance charges.

The Concessionaire shall maintain all above facilities in good condition and pay all necessary charges including the driver's salary, diesel and petrol, maintenance and repairs, monthly electric, telephone, cell phone bills, stationary for all the services provided during the construction period. All the above facilities shall be provided within one month from issue of work order. Site office & quarters shall be maintained by the Concessionaire during construction period. Site office and all amenities

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provided by the Concessionaire shall be the property of the Govt. after the construction period.

2. **FIELD LABORATORY**

Concessinaire shall establish full fledged field laboratory with all modern equipment mentioned in Section-VIII of Volume-II & basic material required for various items as well as for testing of finished items, required as per latest MORT&H & IRC standards. Field Laboratory should be established in the vicinity of hot mix plant location which should be got approved by Engineer-In-Charge.

PROJECT COMPLETION SCHEDULE

(Refer Schedule-D of Volume-I)

This project is to be executed in single phases and construction period is 24 months. The project of Four Laning of Wada Bhiwandi road SH. No. 35 (Km. 49/000 to 89/070) & Manor Wada road SH No. 34 (Km. 29/550 to 53/800) is to be completed as described in details above

The toll collection will be allowed after completion of work in all respect after issue of Completion Certificate as prescribed in relevant clauses.

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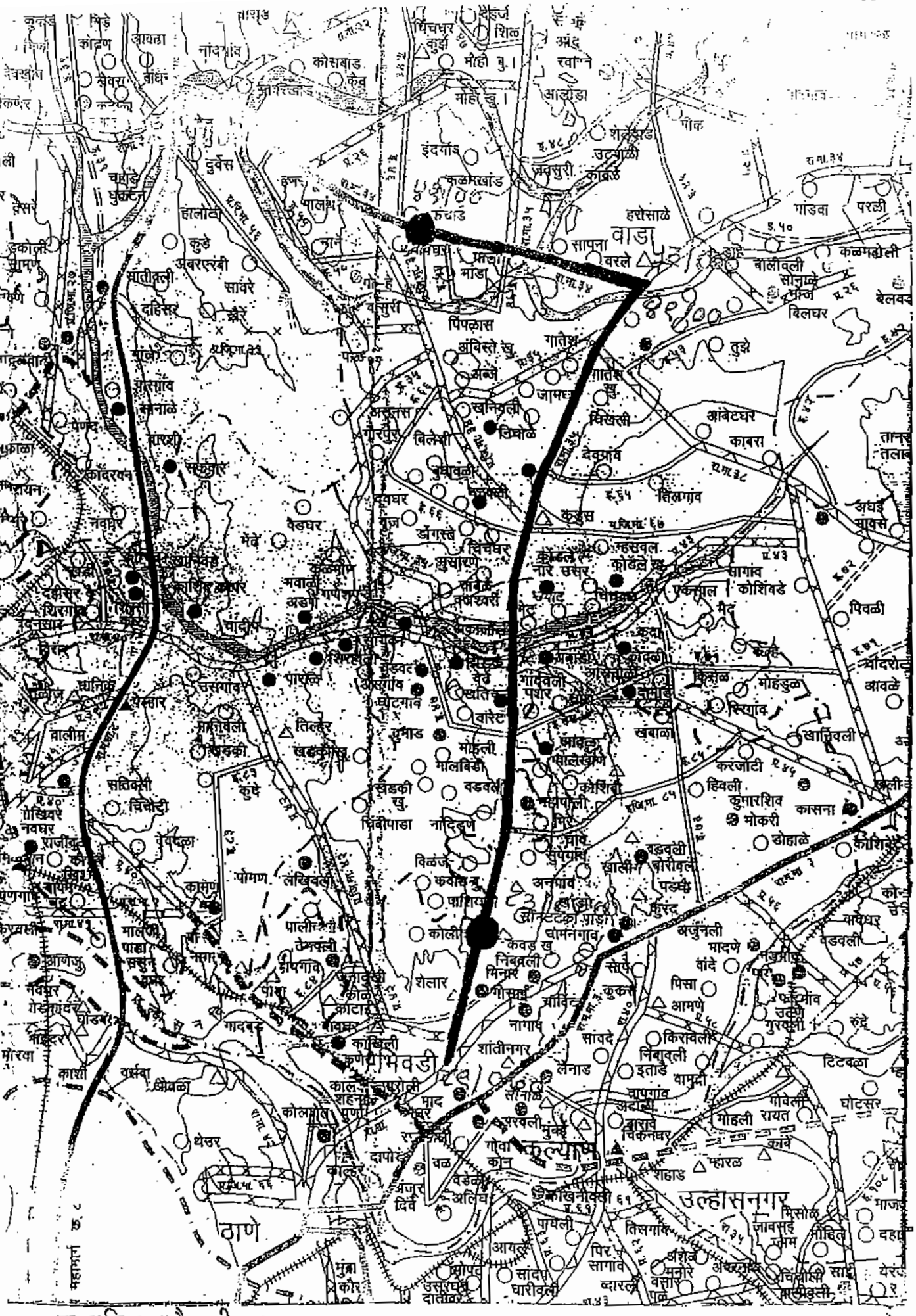

प्रस्तावित चौपदरीकरण.....

प्रस्तावित पथकर नाका.....

Section – V

Bidding Data

SECTION- V

BIDDING DATA

1.0 SCOPE OF BID (ITB) :

1.1 Sealed offers in the prescribed form are invited by the government from the eligible bidders for the execution of project on build, operate and transfer basis (as defined in these documents and referred to as "the works") as per IFB. The works are detailed in section –IV of this Volume.

3.2 ADDITIONAL DOCUMENT IN ENVELOPE-I.

3.2.1 The bidder shall also submit the following documents in envelope-I.

i) Report on the financial standing of the bidder, such as profit and loss account statements and auditor's reports signed by Chartered Accountant for the last five years.

ii) Evidence of adequacy of working capital for this contract (access to lines of credit and availability of other financial resources.)

iii) Authority to seek references from the bidders bankers.

iv) Justification of the bidder for their capability of completing the work as per milestone specified within the stipulated period of completion with the following documents.

- Proposed Work Plan.
- Methodology of construction including traffic diversion and management on existing roads.
- Equipment, Planning and Development with broad calculation.
- Quality control procedure.

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3.3 JOINT VENTURES :

For Joint Venture

i) Option 1 The lead technical member would be required to have

i) At least 50% of value of work done as specified above (for individual) and

ii) Commit to hold minimum equity stake equal to 33% of aggregate share holding of the consortium in the project at all times during concession period.

And

Lead Financial member would be required to have

i) Minimum financial capability of at least 50% of turnover and net worth criteria as specified above (for individual)

ii) Commit to hold minimum equity stake equal to 33% of aggregate share holding of the consortium in the project at all times during the concession period.

ii) Option-2 Lead member would be required to

i) Complete minimum of the 50% of value of work done specified above and financial capability of at least 50% of the financial criteria i.e. turnover and net worth specified above (for individual)and to commit to hold minimum equity stake equal to 51% of agrregate of the consortium in the project at all times during the concession period.

ii) In case of a member of the consortium, who is neither a lead Technical Member nor a lead financial member nor a lead member under either of the above option 2, the member would be required to commit to hold a minimum equity stake equal to 10% of the aggregate shareholding of the consortium in the project at all times during the concession period.

Details of experience and performance of each of the parties to the joint venture on works of similar nature within the past five years, current works in hand and other contractual commitments should be clearly indicated in Schedule W (Proforma) enclosed with this document.

Where the Project is being implemented by a consortium, the Memorandum of understanding entered into them for the purpose of implementing the project shall be appended.

If the contractor has purchased the bidding documents in his own name and subsequently form joint venture with one or two additional companies, the

bidding document can be used for submission of bid in the name of joint venture provided the bidder purchasing documents is a **"Lead Firm".**

Experience and resources of joint venture partners as per work distribution as proposed in joint venture, agreement shall be taken into account in determining the bidder's compliance with the qualifying criteria. The liquidation of joint venture during the contract period shall not be allowed.

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GOVERNMENT OF MAHARASHTRA

DETAILS OF EXPERIENCE AND PERFORMANCE OF JOINT VENTURES / CONSORTIUM

(Refer Schedule-W of volume-I)

AVERMENTS AND AUTHORISATIONS – Proforma

(To be given separately by each partner of Joint Venture / Consortium)

I, undersigned, do hereby certify that all the statement made in the preceding schedules and in the required attachment are true and correct.

I/We the undersigned do hereby certify we are not associated directly or indirectly with consultants for this project or any other entity that has prepared the design, specification or other document for this project.

I /We, the undersigned, do hereby certify, that we are not associated directly or indirectly with Consultant / Engineers proposed for this project.

The undersigned hereby authorise (s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Government of Maharashtra to verify this statement or regarding my (our) competence and general reputation.

The undersigned understands and agrees to furnish any such information at the request of Government of Maharashtra.

.....
(Signed by an Authorised Signatory of the Firm)
.....

(Title of Signatory)
.....
(Name of firm and Seal)
.....

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Section - VI

Contract Data

SECTION- VI

CONTRACT DATA

Sr. No.	Article No./ Clause No. (of Volume I)			
1.	1.0	:	The Employer is Government of Maharashtra	
2.	1.0	:	Government is Government of Maharashtra	
3.	1.0	:	Chief Engineer is	Chief Engineer.
			Address	: Mumbai (P.W.)Regon 25, Merzban Road, Fort, Mumbai - 400001
			Telephone No.	: 022-22071594
			Fax No.	: 022-22074700
			E-mail ID	: cemum@mahapwd.com
4.	1.0	:	Superintending Engineer is	Superintending Engineer
			Address	: Thane P.W.Cirlce, Station Rd. Thane Pin - 400601
			Telephone No.	: 022-25363241
			Fax No.	: 022-25361127
			E-mail ID	: sethn@mahapwd.com
5.	1.0	:	Executive Engineer is .	Executive Engineer
			Address	: Thane (P.W.) Division, Station Rd, Thane Pin - 400601
			Telephone No.	: 022-25369293
			Fax No.	: 022-25377240
			E-mail ID	: eethn@mahapwd.com
6.	1.0	:	Engineer in Charge is Ex.Engineer Thane (P.W.) Dn, Thane	
7.	1.0	:	Project Cost	Rs.280.00 Crores.
8.	3.1 (a)	:	Performance Security for construction	Rs.840.00 lakhs
9.	3.1(b)	:	Performance Security for operation and maintenance	Rs. 282.00 lakhs
10.	8.2(g)	:	Date by which As Built Drawings must be submitted	90 Days after the issue of the completion of the section of the work as the case may be.

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Sr. No.	Article No./ Clause No. (of Volume I)			
11.	5.2(a)	:	Concessionaire to submit the programme for the works from the date of work order	One Week
12.	18.3	:	Defect Liability period Road works : Bridge works :	 Concession period + 3 years. Concession period + 3 years.
13.	Schedule I	:	Fees for Design Approving Engineer and Proof consultant.	Rs.50.00 lakh to be paid in lump sum upfront.
14.	9.2(c)	:	Liquidated damages for delay beyond the scheduled project completion	Rs.4.00 Lakhs /day for every day of delay (limited to 10% of the project cost.) beyond 24 calendar months.
15.		:	Time limit for completion of work.	24 Months.

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Section – VII

Design Data for River Bridge / Creek Bridge

Section- VII

ANNEXURE-1

SUPPLEMENTARY DATA : (FOR DEHRAJA RIVER BRIDGE AT CH.30/690 ON MANOR WADA ROAD SH-34).

1.0	OBLIGATORY PROVISIONS:	
(i)	Length of Bridge as measured between inner faces of dirt wall	117.50 Mtrs.
(ii)	Soffit R.L. shall not be lower than	.....
(iii)	Clear Carriageway width	7.50 meters.
(iv)	Footpath width	No footpath
(v)	Overall width of Bridge (between outer edges of deck slab)	8.25 meters
(vi)	Vertical clearance for Navigational spans above H.T.L./ H.F.L.	Not required.
(vii)	Horizontal clearance for Navigational spans.	- do -
(viii)	Clear linear waterway (Minimum required) Clear linear water way is the length of water way between the inner face of abutment @ HFL for high level and O.F.L. for submersible bridge after deducting widths of piers at H.F.L. and O.F.L. respectively.	..... meters.
(ix)	Design speed	80 Km/hr
2.0	HYDRAULICS DATA :	
(i)	L.W.L. R.L.	.....
(ii)	O.F.L. R.L.	.....
(iii)	H.F.L. (Design) R.L.	.....
(iv)	Maximum Mean Compartmental velocity at Design H.F.L.	— M/Sec.
(v)	Catchment area	....Sq km
(vi)	Calculated afflux at Design H.F.L.	—

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(vii)	Scour level R.L. Pier Abutment	—
(viii)	Additional data for Coastal area (a) L.T.L. R.L. (b) H.T.L. R.L.	....

3.0 DESIGN LOADS:

3.1	Footpath Loads :	No Footpaths
3.2	Service Loads :	No service Lines.
3.3	Temperature effects :	Moderate (20^0 C to 43^0 C)
3.4	Barge Impact :	
	Navigational Piers	nil
	Other Piers	100 T
3.5	Seismic Force:	
	Seismic Zone	III
	Importance Factor	1.00

4.0 EXPOSURE : Severe

5.0 (1) For High Level Bridge with footpath : Sanchi Type Railing/crash barrier.

(2) For high level Bridge without footpath – Crash Barrier.

(3) For Submersible Bridge : Angle Iron Posts & GI Pipe Railing

6.0 Type of Anticorrosive Treatment to be provided to reinforcing bars : FBEC

7.0 Expansion Joints (Max.) 3 Nos.

8.0 Wearing coat 25 mm thick mastic asphalt

Concessionaire

Engineer in Charge

Section- VII

ANNEXURE-1

SUPPLEMENTARY DATA : (FOR PINJAL RIVER BRIDGE AT CH.47/840 ON MANOR WADA ROAD SH-34).

1.0	OBLIGATORY PROVISIONS:	
(i)	Length of Bridge as measured between inner faces of dirt wall	108.00 Mtrs.
(ii)	Soffit R.L. shall not be lower than	.....
(iii)	Clear Carriageway width	7.50 meters.
(iv)	Footpath width	No footpath
(v)	Overall width of Bridge (between outer edges of deck slab)	8.25 meters
(vi)	Vertical clearance for Navigational spans above H.T.L./ H.F.L.	Not required.
(vii)	Horizontal clearance for Navigational spans.	- do -
(viii)	Clear linear waterway (Minimum required) Clear linear water way is the length of water way between the inner face of abutment @ HFL for high level and O.F.L. for submersible bridge after deducting widths of piers at H.F.L. and O.F.L. respectively.	..... meters.
(ix)	Design speed	80 Km/hr
2.0	HYDRAULICS DATA :	
(i)	L.W.L. R.L.	.....
(ii)	O.F.L. R.L.	.....
(iii)	H.F.L. (Design) R.L.	.....
(iv)	Maximum Mean Compartmental velocity at Design H.F.L.	— M/Sec.
(v)	Catchment area	....Sq km

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(vi) Calculated afflux at Design H.F.L. —

(vii) Scour level R.L. Pier —
Abutment

(viii) Additional data for Coastal area
(a) L.T.L. R.L. .....
(b) H.T.L. R.L. .....

3.0 DESIGN LOADS:

3.1 Footpath Loads : No Footpaths

3.2 Service Loads : No service Lines.

3.3 Temperature effects : Moderate (20^0 C to 43^0 C)

3.4 Barge Impact :

Navigational Piers	nil
Other Piers	100 T

3.5 Seismic Force:

Seismic Zone	III
Importance Factor	1.00

4.0 EXPOSURE : Severe

5.0 (2) For High Level Bridge with footpath : Sanchi Type Railing/crash barrier.

(2) For high level Bridge without footpath – Crash Barrier.

(3) For Submersible Bridge : Angle Iron Posts & GI Pipe Railing

6.0 Type of Anticorrosive Treatment to be provided to reinforcing bars : FBEC

7.0 Expansion Joints (Max.) 3 Nos.

8.0 Wearing coat 25 mm thick mastic asphalt

Concessionaire Engineer in-Charge

Section- VII

ANNEXURE-1

SUPPLEMENTARY DATA : (FOR VAITARNA RIVER BRIDGE AT CH.51/800 ON WADA BHIWANDI ROAD SH-35).

1.0	OBLIGATORY PROVISIONS:	
(i)	Length of Bridge as measured between inner faces of dirt wall	126.00 Mtrs.
(ii)	Soffit R.L. shall not be lower than	.....
(iii)	Clear Carriageway width	7.50 meters.
(iv)	Footpath width	No footpath
(v)	Overall width of Bridge (between outer edges of deck slab)	8.25 meters
(vi)	Vertical clearance for Navigational spans above H.T.L./ H.F.L.	Not required.
(vii)	Horizontal clearance for Navigational spans.	- do -
(viii)	Clear linear waterway (Minimum required) Clear linear water way is the length of water way between the inner face of abutment @ HFL for high level and O.F.L. for submersible bridge after deducting widths of piers at H.F.L. and O.F.L. respectively.	..... meters.
(ix)	Design speed	80 Km/hr
2.0	HYDRAULICS DATA :	
(i)	L.W.L. R.L.	.....
(ii)	O.F.L. R.L.	.....
(iii)	H.F.L. (Design) R.L.	.....
(iv)	Maximum Mean Compartmental velocity at Design H.F.L.	— M/Sec.
(v)	Catchment area	....Sq km

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(vi) Calculated afflux at Design H.F.L. —

(vii) Scour level R.L. Pier —
Abutment

(viii) Additional data for Coastal area
(a) L.T.L. R.L. .....
(b) H.T.L. R.L. .....

3.0 DESIGN LOADS:

3.1 Footpath Loads : No Footpaths

3.2 Service Loads : No service Lines.

3.3 Temperature effects : Moderate (20^0 C to 43^0 C)

3.4 Barge Impact :

Navigational Piers	nil
Other Piers	100 T

3.5 Seismic Force:

Seismic Zone	III
Importance Factor	1.00

4.0 EXPOSURE : Severe

5.0 (3) For High Level Bridge with footpath : Sanchi Type Railing/crash barrier.

(2) For high level Bridge without footpath – Crash Barrier.

(3) For Submersible Bridge : Angle Iron Posts & GI Pipe Railing

6.0 Type of Anticorrosive Treatment to be provided to reinforcing bars : FBEC

7.0 Expansion Joints (Max.) 3 Nos.

8.0 Wearing coat 25 mm thick mastic asphalt

Concessionaire Engineer In Charge

Section- VII

ANNEXURE-1

SUPPLEMENTARY DATA : (FOR TANSA RIVER BRIDGE AT CH.69/500 ON WADA BHIWANDI ROAD SH-35).

1.0	OBLIGATORY PROVISIONS:	
(i)	Length of Bridge as measured between inner faces of dirt wall	117.00 Mtrs.
(ii)	Soffit R.L. shall not be lower than	.....
(iii)	Clear Carriageway width	7.50 meters.
(iv)	Footpath width	No footpath
(v)	Overall width of Bridge (between outer edges of deck slab)	8.25 meters
(vi)	Vertical clearance for Navigational spans above H.T.L./ H.F.L.	Not required.
(vii)	Horizontal clearance for Navigational spans.	- do -
(viii)	Clear linear waterway (Minimum required) Clear linear water way is the length of water way between the inner face of abutment @ HFL for high level and O.F.L. for submersible bridge after deducting widths of piers at H.F.L. and O.F.L. respectively.	..... meters.
(ix)	Design speed	80 Km/hr
2.0	HYDRAULICS DATA :	
(i)	L.W.L. R.L.	.....
(ii)	O.F.L. R.L.	.....
(iii)	H.F.L. (Design) R.L.	.....
(iv)	Maximum Mean Compartmental velocity at Design H.F.L.	— M/Sec.
(v)	Catchment area	....Sq km
(vi)	Calculated afflux at Design H.F.L.	---

Concessionaire

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(vii) Scour level R.L. Pier —
Abutment

(viii) Additional data for Coastal area
(a) L.T.L. R.L. .....
(b) H.T.L. R.L. .....

3.0 DESIGN LOADS:

3.1 Footpath Loads : No Footpaths

3.2 Service Loads : No service Lines.

3.3 Temperature effects : Moderate (20^0 C to 43^0 C)

3.4 Barge Impact :

Navigational Piers	nil
Other Piers	100 T

3.5 Seismic Force:

Seismic Zone	III
Importance Factor	1.00

4.0 EXPOSURE : Severe

5.0 (4) For High Level Bridge with footpath : Sanchi Type Railing/crash barrier.

(2) For high level Bridge without footpath – Crash Barrier.

(3) For Submersible Bridge : Angle Iron Posts & GI Pipe Railing

6.0 Type of Anticorrosive Treatment to be provided to reinforcing bars : FBEC

7.0 Expansion Joints (Max.) 3 Nos.

8.0 Wearing coat 25 mm thick mastic asphalt

Concessionaire Engineer in Charge

Section – VIII

Equipment for Field Laboratory

SECTION- VIII

EQUIPMENTS FOR FIELD LABORATORY

The following minimum items of laboratory equipment shall be provided in the field laboratory to be established by the Concessionaire for required Test as per Article 9.3 and schedule-M of Volume I

1	**General**	
(i)	Oven – Electrically operated, Thermostatically controller, range upto 2000 C sensitivity 10 C.	2 No.
(ii)	Platform balance 300 kg. Capacity.	2 No.
(iii)	Balance 20 kg. Capacity.	2 No.
(iv)	Electronic Balance 5 kg. Capacity accuracy 0.5 g.	4 Nos.
(v)	Water bath-electrically operated and Thermostatically controlled with adjustable shelves, sensitivity 10 C.	1 No.
(vi)	Thermometers: Mercury-in-glass thermometer range 00 C to 2500 C. Mercury-in-steel thermometer with 30 cm Stem, range up to 3000 C.	4 Nos.
(vii)	Kerosene or gas stove or electric hot plate	2 No.
(viii)	Glass-wares, spatulas, wire gauges, Steel scales, measuring tape, casseroles, Karahis, enameled trays of assorted sizes, pestle-mortar, porcelain dishes, gunny bags, plastic bags, chemicals, digging tools like pickaxes, shovels etc.	As required
(ix)	Set of IS sieves with lid and pan: **350 mm diameter:** 63 mm, 53 mm, 37.5 mm, 26.5 mm, 13.2 mm, 9.5 mm, 6.7 mm and 4.75 mm size. 200 mm diameter: 2.36 mm, 2.0 mm, 1.18 m, 600 micron, 425 micron, 300 micron, 150 micron and 75 micron.	2 Set
(x)	Water testing kit	2 Set
2.	**For Soils and Aggregates**	
(i)	Riffle Box	2 No
(ii)	Atterberg Limits (liquid and plastic limits) Determination apparatus	2 Set
(iii)	Compaction Test equipment both 2.5 and 4.5 kg. Rammers (light and heavy compactive efforts)	2 Set
(iv)	Dry Bulk Density Test apparatus (sand pouring cylinder, tray, can etc.) complete.	2 Set
(v)	Speedy Moisture Metre complete with chemicals	2 Set

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(vi)	Post-hole Auger with Extensions	2 Set
(vii)	Core cutter apparatus 10 cm dia 10/15 cm height, complete with dolly, rammer etc.	2 Set
(viii)	Aggregate Impact Value Test Apparatus/Los Angeles Abrasion Test Apparatus	2 Set
(ix)	Flakiness and Elongation Test Gauges	2 Set
(x)	Standard measures of 30, 15 and 3 liters capacity along with standard tamping rod	2 Set
(xi)	California Bearing Ration Test Apparatus	2 Set
(xii)	Unconfined Compression Test Apparatus	2 Set
3.	**For Bitumen and Bitumen Mixes**	
(i)	Penetrometer with standard needle	2 Set
(ii)	Riffle Box -- Small Size	2 Set
(iii)	Centrifuge type bitumen extractor, hand operated, complete with petrol / commercial benzene.	2 Set
(iv)	Marshal stability test apparatus, complete with all accessories.	1 Set
(v)	Field density bottle along with cutting tray, Chisel, hammer and standard sand.	2 Set
(vi)	3 m straight edge	2 No
(vii)	Camber board	2Set
(viii)	Core cutting machine with 10 cm. dia. diamond cutting edge.	2 Set
(ix)	Vacuum pump and 2 specific gravity bottles	1 Set
4.	**For Cement and Cement Concrete**	
(i)	Vicat apparatus for testing setting times	2 Set
(ii)	Slump testing apparatus	4 Set
(iii)	Compression and Flexural strength testing machine of 200 tone capacity with additional dial for flexural testing	2 Set
(iv)	Needle Vibrator	6 Set
(v)	Air Meter	4 Set
(vi)	Vibrating hammer for vibrating dry mix as for Dry Lean Cement Concrete sub-base	1 Set
(vii)	Cube moulds for cement and concrete tests	18 Nos. of each
(viii)	Sieve shaker to accommodate 450 dia. and 200 dia. sieves	2 No.

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Section –IX

Technical Specifications

SECTION- IX

WORK SPECIFIC TECHNICAL SPECIFICATIONS

Anticorrosive treatment to concrete & Reinforcement For 4 Major Bridges at Ch.30/690 of SH-34(Dehraja river Bridge), at Ch.47/840 of SH-34(Pinjal river Bridge), all minor bridges, slab drains on Manor Wada road SH-34 and at Ch.51/800 of SH-35(Vaitarna river Bridge), at Ch 69/500 of SH-35 (Tansa river bridge) and all minor bridges, slab drains on Wada Bhiwandi road SH-35.

Entire structure shall be given anticorrosive protective paint as approved by the Engineer-In-Charge. This shall be got tested from the approved laboratory and shall be of approved quality, colour and shade.

The protective coating shall consists of:

a) Over M.S. liner to piles : One Coat of zinc rich epoxy primer and two coat of coal tar epoxy (total dry film thickness 50 + 80 + 80 = 210 Micron) to outside surface.

b) Part of substructure in contact with earth & up to H.T.L. / H.F.L. from foundation one coat of primer & two coat of coal tar epoxy.

c) Anticorrosive treatment to reinforcing steel shall be of fusion bonded epoxy coating (F.B.E.C.) type. Specification shall be as per IS – 13620 – 1994. The anchorage / bond length in case of F.B.E.C. Bars shall be increased by 50% of normal values specified in IRC Code.

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Section –X

Toll Rates

Concessions and Exemptions

Concessionaire

Engineer in Charge

SECTION- X

The Toll Rates which will be applicable to this project will be as follows :

YEAR	Six seater Auto Rickshaw (Tum Tum), Motor Car, Jeep (having carriage capacity upto twelve passengers excluding driver) such as Tata Sumo, Trax, Commander, etc.;	Mini Bus (having carriage capacity of more than twelve and upto twenty passengers, excluding driver) and vehicles carrying goods except those mentioned in entries at column No.4 & 5	Trucks, Buses.	Heavy Motor Vehicles as defined in the Motor Vehicles Act, 1988 (59 of 1988) such as Trucks, Multi-Axle vehicles, etc., except vehicles covered by the entries at column number 4.
1	2	3	4	5
	Total Rate	Total Rate	Total Rate	Total Rate
1 July,1998 To 30 June 2001	12.00	18.00	35.00	60.00
1 July, 2001 To 31 March 2004	15.00	25.00	45.00	75.00
1 April, 2004 To 31 March 2007	20.00	25.00	55.00	90.00
1 April, 2007 To 31 March 2010	20.00	30.00	65.00	110.00
1 April, 2010 To 31 March 2013	25.00	40.00	75.00	130.00
1 April, 2013 To 31 March 2016	30.00	45.00	90.00	155.00
1 April, 2016 To 31 March 2019	35.00	55.00	105.00	180.00
1 April, 2019 To 31 March 2022	45.00	65.00	125.00	215.00
1 April, 2022 To 31 March 2025	50.00	75.00	150.00	260.00

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1 April, 2025 To 31 March 2028	60.00	90.00	180.00	310.00
1 April, 2028 To 31 March 2031	70.00	110.00	210.00	370.00
1 April, 2031 To 31 March 2034	90.00	130.00	250.00	440.00

The Toll stations shall be located in Km.41/000 at Kanchad Village on Manor Wada road SH-34 and Km. 83/870 at Kawad village on Wada Bhiwandi road SH-35.

The concessionaire will be permitted to collect the Toll at the approved Toll stations only.

Note.- (1) Concession are as below :-

(a) 10 per cent. rebate will be given to the purchaser of a booklet containing 50 coupons in advance.

(b) 20 per cent. rebate will be given to the purchaser of a booklet containing 100 coupons in advance.

(c) Passes for frequently traveling vehicles -

i) Return and daily pass will be 1.5 times and 2.5 times of one side toll respectively. The pass will be valid upto 12.00 hours midnight of the day on which the pass is drawn.

ii) Monthly pass will be 50 times of one side toll.

(d) The monthly pass concession shall be given to the local traffic for all vehicles registered within radius of 5 km. from the toll station/s and shall be charged 10 times of single journey rate subject to the following conditions :-

i)The vehicle shall be registered within the area.

ii)If it is not so, then the owner shall give proof of residence by producing the ration card.

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(2) Toll shall be levied at the toll stations as prescribed in the tender document.

(3) The following types of motor vehicles are exempted from payment of toll, namely:-

1. VVIP vehicles carrying President of India, Vice-President of India, Governor of State, Public Representatives entitled for red lamp on vehicle.
2. Central and State Government Vehicles.
3. Police Vehicles.
4. Defence Vehicles.
5. Vehicles of Posts and Telegraphs Department.
6. Ambulances.
7. Hearses.
8. Fire Fighting Vehicles.
9. Vehicles in which sitting members of Parliament, Maharashtra Legislative Assembly and Maharashtra Legislative Council are travelling.

Concessionaire

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Section – XI

Safety Standards

SECTION- XI

SAFETY STANDARDS

(Refer Schedule-P of volume-I)

Section – XII

MAINTENANCE STANDARDS

SECTION- XII

MAINTENANCE STANDARDS

(Refer Schedule-X of volume-I)

Section – XIII

Memorandum of Understanding

Concessionaire

Engineer in Charge

SECTION- XIII

MEMORANDUM OF UNDERSTANDING

(Refer Schedule-U of volume-I)

Section – XIV

Declaration of Bidder

Concessionaire

Engineer in Charge

SECTION- XIV

(Refer Schedule-V of volume-I)

DECLARATION OF THE BIDDER

I / We hereby declare that I / We have made myself / ourselves thoroughly conversant with the local conditions regarding all materials and labour of which I/ We have based on my / our rates for this bid. The Specification and leads on this work have been carefully studied and understood before submitting this bid. I / We undertake to use only the best materials approved by Engineer or his duly authorized representative during execution of the work and to abide by the decision.

SIGNATURE OF BIDDER

Concessionaire

Engineer-in-Charge

Section – XV

Amendments to Provisions in Volume -I

SECTION- XV

The Amendments to Volume - I

1. Clause 3.2, Clause 3.3 on page no.9 of Section-I of Volume-I. is deleted.

2. Clause 8.1, on page no.10 of Section-I of Volume-I.

   A prebid conference open to all prospective bidders will be held at the time and place as per **IFB** in Volume-II wherein the prospective bidders will have an opportunity to obtain clarifications regarding the bid conditions and the work. The prospective bidders are free to ask any additional information or clarification, either in writing or orally and reply to the same will be given in writing by the Employer. The copies of the question raised and the replies given will be furnished to all those attending the meeting (and subsequently to all purchasers of bid documents). Any modifications of bid documents, which may become necessary as a result of prebid conference shall be through issuance of an addendum pursuant to Clause 9 of ITB of these instructions.

3. Clause 15.2, on page no.12 of Section-I of Volume-I.

   Bid security shall be in the form of Demand Draft, Government Treasury/ Sub treasury Chalan or Term Deposit Receipt valid for a period of 12 (twelve) months form the date of submission of tender, and drawn on any branch situated in Maharashtra of any Nationalised or Scheduled bank pledged in favour of the Engineer in Charge. The said amount of bid security shall not carry any interest whatsoever. The bid security in any other form other than described above shall not be accepted. (Amount of Bid Security shall be as per **IFB** in Volume II)

4. Clause 17.3.1 (d) to 17.3.1 (o) on page no.14 of Section-I of Volume-I is deleted.

5. Clause 21.1 on page no.16 of Section-I of Volume-I. is modified as under.

1.	Chief Engineer, Mumbai P.W.Region, Mumbai	:	Chairman
2.	Superintending Engineer, P.W.Circle, Thane	:	Member
3.	Superintending Engineer, Vigilance & Quality Control Circle, Navi Mumbai	:	Member
4.	Chartered Accountant	:	Member
5.	ExecutiveEngineer,Thane P.W.Division, Thane	:	Member Secretary

6. Clause 27.3 (b) on page no.20 of Section-I of Volume-I is modified as under : -

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The bidder with the lowest correct concession period, determined as per Clause 25 of ITB will be invited for further negotiations as may be necessary. If the negotiations with the firm are successful, the award will be made to that bidder. If, however, it is seen that a contract with reasonable terms cannot be concluded with the bidder with the lowest corrected concession period, the bidder with the second lowest concession period, will be invited for negotiations. The process will be repeated until an agreed contract is concluded.

6. Clause 27.3 (c) on page no.20 of Section-I of Volume-I is Deleted

7. Article 3.1 (a) and (b) Performance Security on page no.44 of Section-II Volume-I. are modified as under :-

3.1(a) Before executing this Concessionaire agreement the Concessionaire has already deposited performance security of **Rs. 840.00 Lakhs**, for due and punctual performance of its obligations during the Implementation Period, deliver to the GOM, simultaneously with the execution of this Agreement a bank guarantee from a branch situated in Maharashtra of scheduled/ Nationalised bank acceptable to the GOM, in the form set forth in Schedule 'Q', the "Performance Security for construction" for a sum of **Rs. 840.00 Lakhs**. (as per **Contract** Data - volume II)

3.1(b) The Concessionaire shall for due and punctual performance of obligations during the Operations Period deliver to the GOM, on or before the COD, the bank guarantee from a branch situated in Maharashtra of scheduled, Nationalised bank acceptable to the GOM in form setforth in Schedule/ 'R' the Performance Security for operation and maintenance, for a sum of Rs. 282.00 lakhs. **(as per Contract Data - volume II)**

8. Article 3.3 on page 44 of section-II of Volume-I is modified as under

Article 3.3(a):- The performance security for construction shall be released after one year of handing over of the project to P.W.D.,Govt. of Maharashtrta on completion of concession period.

Article 3.3 (b):- The performance security for operation and maintainance shall be realeased after completion of defect liability period (as mentioned in contract data on page-43 of Section-VI of Volume-II.).

9. Article 6, Superivision Consultant on page no.52 of Section II of Volume I **is Deleted.** The Supervision will be done by P.W.D. Staff.

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10. Clause 10.4 of Article-10 on page no.64, 65 & 66 of Section-II of Volume-I. is deleted.

11.. Article-11, Supervision Charges on page no.67 of Section-II of Volume-I. is deleted.

12. Clause 13.2 (b) (ii) of Article 13, Change of Scope on page no.70 of Section II, Volume I is modified as under.
For the changed scope, the Concessionaire shall carryout such items of work at the rate of prevalent DSR. If there are no rates available in the DSR then the concessionaire shall provide the analysis of rates for carrying out the items which are not covered by the D.S.R The superintending Engineer will scrutinise and approve the rates. The decision of the superintending Engineer shall be final and binding on the concessionaire.

13. Clause 13.2 (c) of Article 13, Change of Scope on page no.70 of Section II, Volume I is modified as under.

The Engineer-in-charge shall review the information provided by the Concessionaire, asses quantities of items of work, **verify the analysis of rates if required,** determine the additional cost to the Concessionaire as a result of such Change of Scope, add such additional cost to Initial Investment in the Cashflow Projections and determine the extension, if any, to the Concession Period in order to maintain the Internal Rate of Return. Provided, that the projections for years beyond the Concession Period shall be average of three years immediately preceding the last year of the original Cashflow Projections.

14. Forms for "Submission of Bid" of Schedule E on page 105 and 106 of Section-III of Volume-I is modified and attached in Volume-III page-6.

15. Form-1 of Schedule-E on page no.107 of Section-III of Volume-I is deleted and Form-2 (Details of the Total Project cost) on Page No. 108 of section III, Volume-I is modified and attached in Volume III at Page No. 9 to 11.

16. The duties of supervision consultant given in Schedule-J page no.123 of Section-III of Volume-I will be performed by the Engineer-in-charge.

17. Schedule M, Tests on page no.180, of Section-III of Volume-I . The 'Note' below schedule M is to be read as under

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Note : Out of total test to be carried out as mentioned above minimum **30%** of the test are to be carried out from Regional Laboratory, Q.C. & Vig. Circle, of the Department.

18. Schedule 'O' Minimum Maintenance Requirements, para 1 on page no.183 of section III, of Volume I is to be read as under :

The Concessionaire shall repair and maintain the Project facility roads, Bridges, Bridge approaches, C.D. Works, tunnels, other structures etc. till it is finally handed over to the Government at the end of the concession period. He shall keep it in the same condition and standard as contracted, with necessary repairs and maintenance at his own cost. The Engineer in charge shall be at the liberty to direct Concessionaire to measure the roughness index on any of the day in the presence of representative of the Engineer in charge or he may measure the roughness index departmentally by informing the Concessionaire. In addition to this intermittent checking of roughness index will have to be carried out as per instruction of the Engineer in charge. The roughness index for the road surface shall not be more than 2000 mm and shall not be allowed to deteriorate beyond 2000 mm per km. during the entire concession period. If the roughness index goes beyond 2000 mm per km. renewal coat of minimum **40 mm thick Bituminous concrete** (with pothole/ patch repairing work if required). will have to be laid for such stretch along with thermoplastic painting as directed by the Engineer in charge.

19. Schedule 'O' Minimum Maintenance Requirements, para 3 on page no.183 of section III, of Volume I is to be read as under :

The renewal coat of minimum **40 mm Bituminous Concrete** as stipulated in the volume II should be provided for full length of the project once in every **6** years or as stipulated in the volume II throughout the concession period. Apart from this periodical renewal for the stretches in which roughness index goes beyond 2000 mm per kilometer, shall be renewed.

The provision of renewal coat shall be minimum **40 mm Bituminous Concrete** or as stipulated in the bid data in volume II. However the Concessionaire may provide higher treatment to keep the roughness index below 2000mm/km without any extra claims with prior approval of the Engineer in charge.

20. Schedule 'O' Minimum Maintenance Requirements, para 5 on page no.185 of section III, of Volume I is to be read as under :

The Concessionaire shall take suitable corrective measures for rectification of road profile, camber and superelevation. The condition of the pavement shall be judged and rated as per the serviceability scale in the AASHO Road Test. The acceptance rating as judged by the Engineer shall not fall below '4'.

Concessionaire Engineer in Charge

If the pavement, wearing surface, any part of structures like bridges, C.D. works, ancillary structures, protective works, embankments, retaining walls, gutters, drainage system, road furniture or appurtenances and fixtures, etc. show deterioration such as to require strengthening or renewal the same shall be done by the Concessionaire at his own cost. At the time of handing over the facility back to the Government at the end of the concession period, the same serviceability criteria shall apply and must renewal/ strengthening shall have to be carried out by the Concessionaire at his own cost, of 40 mm thick Bituminous concrete as given in Volume II in view of roughness index not more than 2000 mm per k.m., though handing over date fails within six years from date of last renewal.

21. Schedule W, Details of experience and performance of joints venture / consortium on page no.233 to 246 of Section-III of Volume-I (i.e. proforma 1 to 11)are Deleted and Averments and Authorisation – Proforma 12 on page no.247 is to be read as **Averments and Authorisation –Proforma**

22. Additional condition "f" is included in maintenance requirements (Clause 3.1 A) Schedule-X of Section-III of Volume-I on page no.252 is as below :

3.1.A.f.- If the concessionaire fails to maintain the road in traffic worthy condition as per instructions above the repair work will be got done at risk and cost of the concessionaire and the expenditure so incurred will be recovered by encashing the performance security. It will be obligatory on the part of the concessionaire to recupe the amount so adjusted through the performance guarantee within 15 days from the receipt of the notice

Concessionaire

Engineer in Charge