E-Tender

FOR AUTHORISED USE ONLY

B-1 Tender
Agreement No.
B-1/ – For 2013-14

GOVERNMENT OF MAHARASHTRA
PUBLIC WORKS DEPARTMENT
PUBLIC WORKS REGION, PUNE
PUBLIC WORKS CIRCLE, KOLHAPUR
PUBLIC WORKS (SOUTH) DIVISION, KOLHAPUR

TENDER PAPERS FOR B-1

-: Name of Work :-

S.T.B.T. from S.H. 180 to Kanur Kurni Gavase
Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/ 300
to 7/400, Tal. - Chandagad, Dist. - Kolhapur.
(Part - Kruni to Gavase)

Estimated cost of works : Rs. 35,23,632/-
E-Tender

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Agreement No.
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Issued to_________________________________________  Registered in Class ________________________

____________________________________________________  __________________________________________

____________________________________________________  Valid up to ________________________________

____________________________________________________  D.R. No. _________________________________

On Dated ____________________________  Date ________________

Divisional Account Officer
P. W. (South) Division, Kolhapur.

Signature of contractor  No. of Corrections  Executive Engineer
DISCLAIMER

1. Detailed Time Table for the various activities to be performed in e-tendering process by the Tenderer for quoting their offer is given in this Tender Document under "Tender Schedule", Contractor should carefully note down the cut-off dates for the carrying out each e-tendering process / activity.

2. Every effort is being made to keep the Website up to date and running smoothly 24 x 7 by the Government and the Service Provider. However Government takes no responsibility, and will not be liable for, the website being temporarily unavailable due to any technical issue at any point of time.

3. In that event Public Works Department will not be liable or responsible for any damages or expenses arising from any difficulty, error, imperfection or inaccuracy with this Website, it includes all associated services, or due to such unavailability of the Website or any part thereof or any contents or any associated services.

4. Tenderers must follow the time table of e-tendering process and get their activities of e-tendering processes done well in advance so as to avoid any inconvenience due to unforeseen technical problem if any.

5. Public Works Department will not be responsible for any incomplete activity of e-tendering process of the tenderer due to technical error/ failure of website and it cannot be challenged by way of appeal, arbitration and in the Court of Law. Contractors must get done all the e-tendering activities well in advance.
कार्यकारी अभियंता,
सार्वजनिक बांधकाम (दक्षिण) विभाग, कोल्हापूर
ताराबाई पार्क, मुख्य पोस्ट ऑफिस मागे, कोल्हापूर-४१६ ००३

email : southkolkapur ee@mahapwd.com Phone : (0231) 2650042

जा. क्र. लेखा/ जो. ३४ / ६४४४/ २०१३ दिनांक :- १२/११/२०१३

प्रति,
मा. उप संचालक, (माहिती)
विभागीय माहिती कार्यालय,
मध्यपूर्वी प्रशासनीय इमारत, पाहिला मंजळा,
कसबा बाबुदा मागे, कोल्हापूर- ४१६ ००३

विषय :- ए-निविदा सूचना क्रमांक २२ सन २०१३-२०१४ (ऑनलाइन) प्रसिद्ध करणे बाबत.....

महोदय,

संबंध या कार्यालयाची ए-निविदा सूचना क्रमांक २२ सन २०१३-२०१४ (ऑनलाइन) ची संक्षिप्त निविदा सूचना संबंधत एक वेळा प्रसिद्धीसाठी पाठविते विनंती आहे.

१) कार्यालयाचे नाव : कार्यकारी अभियंता, सा. बां. (दक्षिण) विभाग, कोल्हापूर,
ताराबाई पार्क, मुख्य पोस्ट ऑफिस मागे, कोल्हापूर

२) जाहिरात बौद्ध पाठवित्तचा पत्र : कार्यकारी अभियंता, सा. बां. (दक्षिण) विभाग, कोल्हापूर,
ताराबाई पार्क, मुख्य पोस्ट ऑफिस मागे, कोल्हापूर

३) जाहिरात प्रसिद्धीचा दिनांक : दिनांक १२/११/२०१३ यूँ.

४) प्रसिद्धीची पातळी व वर्तमानपत्र : विभागीय तरारेरील ("च" भाग) मराठी वर्तमानपत्र (थांबे) या सापाटातील मध्ये फटका एक वेळा.

संबंध – ए-निविदा सूचना क्र. २२ सन २०१३-२०१४ (ऑनलाइन) च्या सहा प्रतीत.

आपला विश्वासाने
सही/-
कार्यकारी अभियंता
सार्वजनिक बांधकाम (दक्षिण) विभाग, कोल्हापूर

प्रत - मा. मुख्य अभियंता, सा. बां. प्रादेशिक विभाग, पुणे - १ यांना माहितीसाठी संविधान सादर.
प्रत - मा. अधीक्षक अभियंता, सा. बां. मंडळ, कोल्हापूर, यांना माहितीसाठी संविधान सादर.
प्रत - कार्यकारी अभियंता, सा. बां. विभाग, (उन्नत) कोल्हापूर/र.म.विभाग क्र.७, कोल्हापूर/विशेष प्रकाश (सा.बां.)
विभाग, कोल्हापूर यांना माहितीसाठी सर्वेक्षन अमृत.
प्रत - कोल्हापूर जिल्हा कांटे-स्टेट असोसिएशन, फ्लोट नं.१५, जगूतीनगर, कोल्हापूर
प्रत - उप अभियंता, सा. बां. उप विभाग, राजीनारे/भुवनगढ/चंदगड/ आजरा/गडेंगलज यांना माहितीसाठी रवाना.
प्रत - नोटसस बोट
प्रत - वेबसाइटवर प्रसिद्धीसाठी.

Signature of contractor No. of Corrections Executive Engineer
## ई निविदा संक्षेप जाहिरातीचा नमूना.

<table>
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<tr>
<th>विभागाचे /कायांवयाचे नाव</th>
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### ई निविदा संक्षेप नोंदा

<table>
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### कामाचे संक्षेप वर्गान :-

1. तालुका-भुदरगड १ कामे
2. तालुका- चंदरगड- २ कामे
3. तालुका- गडहिंगलन- ३ कामे
4. तालुका- राधानगरी- ६ कामे

### निविदा शुल्क : 

| र. १०००/- प्रत्येको. |

### निविदा उपद्रवाची तारीख व केला 

| १) लिफाफा क्र.१ दिव. ०९/१२/२०१३ रोजी दुपारी १५.०० नंतर |
| २) लिफाफा क्र.२ दिव. १०/१२/२०१३ रोजी दुपारी १५.०० नंतर |

1. निविदा कागदपत्रांच्या तपशील www.mahapwd.com व www.maharashtra.etender.in या संकेत स्थळावर उपलब्ध आहेत. निविदकारांनी कार्यकारी अभियंत्याच्या कागदपत्रांच्या, शुल्क आणि कार्यकारी अभियंत्याच्या सर्वांच्या हक्कांची त्यांच्या डी.डी. /आय.पी.ओ. च्या स्वरूपात सादर केली आहे.

2. निविदकारांनी त्यांच्या बोली ओळखाडून इलेक्ट्रॉनिक पत्रसूची देऊन सादर कराव्यात.

3. निविदकार राग ध्वनि/साठी निविदकारांनी क्लास III डिजिटल सिमन्चर आणि बर नमुद कलेत्या संकेत स्थळावर Enroll करिता स्वतः नाव ऑनलाइन करून नव्हे.

4. कोणत्याही स्पष्टाकरणासाठी निविदकारांनी दूरध्वनी क्रमांक (०२३१) २६५००७४२ शी संपर्क साधावा.

5. पत्रविचाराकरिता संपर्क व्यक्ती व पत्ता

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<th>फॅक्स क्रमांक. (०२३१) २६५००४७०</th>
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<td>दूरध्वनी क्रमांक. (०२३१) २६५००४२</td>
<td>ई-मेल पता. <a href="mailto:southkolhapur.ec@mahapwd.com">southkolhapur.ec@mahapwd.com</a>.</td>
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</table>

कार्यकारी अभियंता,
सार्वजनिक बांधकाम (दक्षिण) विभाग,
कोल्हापूर
### ई-निविदा सूचना क्रमांक २२ सन २०१३-२०१४ (ऑनलाइन)

खालील कामचे व-९ नमुनयातील ऑनलाइन निविदा कार्यकारी अभियंता, सार्वजनिक बांधकाम (दक्षिण) विभाग, कोल्हापूर ई-निविदा प्रणालीदारे पात्र निविदाकारांकडून ऑनलाइन निविदा माणवित आहेत. निविदाधारकाम सुचित करण्यात येते की, ऑनलाइनसाठी प्रसिद्ध केलेल्या व कार्यक्रम डाटामध्येल अटू तांत्रिक संपर्कप्रेक्षण व शेडूल-बी मधील परिमाण व दर हे विद डाटा निविदा संचालनाच्या समाविष्ट करण्यात आलेले अहेत.

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<th>कामचे अद्यावत किताब</th>
<th>इसारा/व्यापार कारकम</th>
<th>काम पूर्ण करण्याचा कालव्या</th>
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<td>व-१</td>
<td>३५,८३,३७४/-</td>
<td>३५,९००/-</td>
<td>९ महिने</td>
<td>१०००/-(ना-परतावा) (धनाकार्यांत)</td>
<td>वर्ग-पाच व त्यावरील.</td>
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<td>कोल्हापूर जिल्ह्यांतील चंद्रगड तालुक्यांतील रामा.२०१९ ते यथाक्रोध शिरसाने किंवा नेशनरी कोवाल कागाणी हासूर उपग्रह व राज्यहदी पदव्या रस्ता प्रजिमा रा.६१ कि.मी.३०/००० मधील हासूर गावाजवळ पुलायचे वाच्ये. (भाग - हासूर गावाजवळ)</td>
<td>व-१</td>
<td>३८,२०,३६५/-</td>
<td>३८,२००/-</td>
<td>९ महिने</td>
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<td>कोलापूर जिल्ला तालुकावाली चंद्रगड तालुका मात्राएँ रा मा क्र १८९ पासून कानून कुरणी सूची इत्यादि पूरा अडकूर रा मा क्र १८९ ला मित्तरणात रस्ता प्रजिमा क्र ५६ क्र.मि.८/३०० तेल ७/४०० मध्ये मजबुतीकरणसह डॉक्टर करणे (भाग - कुरणी ते गवसे)</td>
<td>३५,२३,६३२/-</td>
<td>३५,३००/-</td>
<td>९ महिने</td>
<td>१०००/- (ना-परततावा) (व्याकरणार्थी)</td>
<td>वर्ग-पाच व त्यावरोल.</td>
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<td>4</td>
<td>रा मा १८९ पासून हेतूवाडी विष्टुवाडी हेब्बाळ जलदाट क़ १२ नेसरी तेगनहाळ बुडोकट्टी तरणी ते राज्य हतिपयत्ता रस्ता प्रजिमा ६३ क्र.मि.८/३०० तेल १०/४०० मध्ये मजबुतीकरणसह डॉक्टर करणे ता. गडहिंगलज (भाग - लिग्नूर क़ १२ नेसरी ते मुंगळवाडी)</td>
<td>४०,८७,६६७/-</td>
<td>४०,९००/-</td>
<td>९ महिने</td>
<td>१०००/- (ना-परततावा) (व्याकरणार्थी)</td>
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<td>४०,१६,५५२/-</td>
<td>४१,०००/-</td>
<td>९ महिने</td>
<td>१०००/- (ना-परततावा) (व्याकरणार्थी)</td>
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<tr>
<td>नं.</td>
<td>रामा १७७ पासून मलाहायपट सुचू कोठावडे मासूराळी प्रज्ञामा ३४ ता मिट्टणारा रस्ता प्रज्ञामा ३५ की.मो.५६/८०० ते २०/०० सुधारणा करणे (भाग - सातवाढी ते मासूराळी) ता. राधानारी</td>
<td>ब-१</td>
<td>२६,२८,२९५/-</td>
<td>२६,३००/-</td>
<td>९ महीने</td>
<td>१०००/-(ना-परतावा) (भनाकर्मण्डारे)</td>
<td>वर्ग-पाच -(अ) व त्यावरील.</td>
</tr>
<tr>
<td>७</td>
<td>रामा १७७ आकृत परखवडे हरपवडे गवशी चुंबकवडे जरूरी गारोबडे गमनबाबडा रस्ता प्रज्ञामा ३९ की.मो.२४/०० ते १४/४०० ची सुधारणा करणे (भाग - पाटौलवडी ते पाटौलबडी) ता. राधानारी</td>
<td>ब-१</td>
<td>२६,२२,६४६/-</td>
<td>२६,४००/-</td>
<td>९ महीने</td>
<td>१०००/-(ना-परतावा) (भनाकर्मण्डारे)</td>
<td>वर्ग-पाच -(अ) व त्यावरील.</td>
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<td>८</td>
<td>रामा १७८ पासून सीजंकूर पनेरी आंटेगाव ऐतिहासिक राजापूर जठकेवडीरी रस्ता प्रज्ञामा ४५ की.मो.५६/०० ते १८/०० ची सुधारणा करणे (भाग-राजापूर ते वाडेड) ता. राधानारी</td>
<td>ब-१</td>
<td>४६,२२,६२५/-</td>
<td>४६,३००/-</td>
<td>९ महीने</td>
<td>१०००/-(ना-परतावा) (भनाकर्मण्डारे)</td>
<td>वर्ग-पाच व त्यावरील.</td>
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<tr>
<td>९</td>
<td>आरं सड़कोली हासूर प्रज्ञामा २९ ता मिट्टणारा रस्ता प्रज्ञामा ३५ की.मो.१९/०० ते २५/०० ची सुधारणा करणे (भाग-पुंगावे ते राझावडे) ता. राधानारी</td>
<td>ब-१</td>
<td>४४,८५,००३/-</td>
<td>४४,५००/-</td>
<td>९ महीने</td>
<td>१०००/-(ना-परतावा) (भनाकर्मण्डारे)</td>
<td>वर्ग-पाच व त्यावरील.</td>
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<tr>
<td>क्रम संः</td>
<td>विवरण</td>
<td>बैलिका</td>
<td>राजस्व</td>
<td>कंपनी के लिए पूर्वांगत्त</td>
<td>वर्ग पाचक व त्यागरील</td>
<td>कंपनी के लिए पूर्वांगत्त</td>
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<td>१०</td>
<td>रा मा १७८ पासून प्रजिमा ८६ सरवड़ सरवड़ पाटणकर डेग्वःड़ी पंडेवःड़ी अवचितवाड़ी अटेगाव अवचितवाड़ी हेदवःड़े रस्ता प्रजिमा ४७ किलोमीटर २०० ते २२० ची सुसारण करणी (भाग - अटेगाव ते तत्तवाचढ़ी फाटा) तारा राजधानी</td>
<td>ब-९</td>
<td>४४,९४,४७७/-</td>
<td>४५,०००/-</td>
<td>९ महीने</td>
<td>१०००/- (ना-परतावा) (धनाकर्मीद्वारे)</td>
<td>वर्ग-पाचक व त्यागरील.</td>
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<tr>
<td>११</td>
<td>रा मा १९३ पासून यवलुज दौनवःड़े रा मा १७७ पूढे बालःिे महःपाड़ी बृहड़ कळे तारा खुऱ्ड विन्दः पड़ढ़ी कळरवःड़े दिग्स अङ्गणः ते रा मा १६८ तारा मङ्घणारा प्रजिमा २३ किलोमीटर ५०० ते ५२० ची सुसारण करणी (भाग - धामोड़ ते बुऱ्डाचढ़ी) तारा राजधानी</td>
<td>ब-९</td>
<td>४४,६८,००४/-</td>
<td>४५,२००/-</td>
<td>९ महीने</td>
<td>१०००/- (ना-परतावा) (धनाकर्मीद्वारे)</td>
<td>वर्ग-पाचक व त्यागरील.</td>
</tr>
<tr>
<td>१२</td>
<td>रा मा १८९ पासून अगरोढ़ी पृष्ठमार बेंसःड़े पाटणाव प्रजिमा ५२ ची सुसारण करणी (भाग - नबःले ते ममदपूर्ण फाटा) किलोमीटर २०० ते २२० तारा भुऱ्डाराढ़</td>
<td>ब-९</td>
<td>४६,५०,०००/-</td>
<td>४६,५००/-</td>
<td>९ महीने</td>
<td>१०००/- (ना-परतावा) (धनाकर्मीद्वारे)</td>
<td>वर्ग-पाचक व त्यागरील.</td>
</tr>
</tbody>
</table>

### ई-निविद्येचे वेछापत्रक

<table>
<thead>
<tr>
<th>नं.</th>
<th>निविदा डाऊनलोड करण्याचा काळावधी</th>
<th>दिनांक रोजगारी सावधानी २०१३ वेढ सकाळी १०.०० वाणी ते दिनांक ०३/१२/२०१३ वेढ सावधान १७.३० वाणीपर्यंत</th>
</tr>
</thead>
<tbody>
<tr>
<td>१</td>
<td>निविदा प्राप्त करण्याचा स्थः, दिनांक व वेढ</td>
<td>--</td>
</tr>
<tr>
<td>२</td>
<td>निविदा पूवरूप वेढ</td>
<td>--</td>
</tr>
<tr>
<td>३</td>
<td>ठेकदाराची अंतरराष्ट्रीय निविदा पूवरूप वेढमेरील उपस्थित मुळे सदर करावाचा अंतिम दिनांक व वेढ</td>
<td>--</td>
</tr>
<tr>
<td>№</td>
<td>Details</td>
<td>Date and Time</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>4</td>
<td>ठेकेदारांनी ऑनलाईन निविदा ताराकरण्यासाठी व सादर करण्यावाच (तात्त्विक व आर्थिक निविदा) ऑर्डर नं. 05/12/2013 सार्व. 1:30 यांजपेयत.</td>
<td>05/12/2013 सार्व. 1:30 यांजपेयत.</td>
</tr>
<tr>
<td>5</td>
<td>ठेकेदारांना ऑनलाईन निविदा तपासती Decryption &amp; Reencrption (तात्त्विक व आर्थिक) करण्यावाच काराक्रम.</td>
<td>05/12/2013 सार्व. 1:30 यांजपेयत.</td>
</tr>
<tr>
<td>6</td>
<td>निविदा इसारा रक्कम, निविदा शून्य व प्रतिशाप्रवाघ इत्यादीचे मुळ दस्तऐवज सार्व करण्यावाच दिनांक.</td>
<td>मा. अध्यक्षक भाषावाच, साई.बाई. अ.मंडल, कोल्हापूर तारावाच वाक्य, कोल्हापूर यांचे कार्यालयाचे दिनांक 03/12/2013 सार्व. 1:30 यांजपेयत.</td>
</tr>
<tr>
<td>7</td>
<td>तात्त्विक निविदा उपडण्याचे ठिकाण, दिनांक व वेळ (साधन ज्ञानालय)</td>
<td>अध्यक्षक भाषावाच, साई. बाई. अ.मंडल, कोल्हापूर यांचे कार्यालयाचे दिनांक 09/12/2013 रोजी दुधारी 13:01</td>
</tr>
<tr>
<td>8</td>
<td>आर्थिक निविदा उपडण्याचे ठिकाण, दिनांक व वेळ (साधन ज्ञानालय)</td>
<td>अध्यक्षक भाषावाच, साई. बाई. अ.मंडल, कोल्हापूर यांचे कार्यालयाचे दिनांक 10/12/2013 रोजी दुधारी 13:01</td>
</tr>
</tbody>
</table>

टिप :-

1. सर्व पत्ता /दर्दखुट निविदाकार्यांनी निविदाप्रत्यक्ष डाउनलोड करण्यासाठी व निविदा प्रक्रियेच भाग घेण्यासाठी इ. निविदा यूनालॉजिकल मैन पोर्टल- "maharashtra.etenders.in" व पवड पोर्टल "pwd.maharashtra.etenders.in" वर नर्मल करणे आवश्यक आहे.

2. निविदाकार्यांना वर मद्दत केलेला संकेतस्थानाच्या ऑनलाईन देकर भरणे संतप्तत व डिजिटल प्रमाणपत्र निविदाकार्यांना संदर्भात काही शंका/अडगणाची असल्यास त्यांनी खालील दृष्टीने कमांडलबद्ध संपर्क सर्वांना सांबांना,

Sify Technologies Ltd. Nextender (India) Pvt. Ltd. On 020-25315555/25315556 (Pune) or 022-26611117 / 26611287 (Extn. 25/26)

3. निविदाकार्यांची निविदा संदर्भात सर्व दस्तऐवज ऑनलाईन सार्व करणे इन्जिनियरांच्या तर सर्व दस्तऐवज ऑनलाईन सार्व करणे इन्जिनियरांच्या संदर्भात काही शंका/अडगणाची असल्यास त्यांनी खालील दृष्टीने कमांडलबद्ध संपर्क सर्वांना सांबांना,

4. इतर ऑटो व शर्ती इ.निविदा नमुनापासून भाषणसंपादन भौतिक, सार्व कामांची एक अवधी सर्व इ.निविदा कार्याची कारण न देता रह दर करण्याचे आध्यक्ष पर्याप्त साधन अध्यक्षांचे यूनालॉजिकल व डाउनलोड नर्मल करणे आहे.

5. वरील कामांची इ.निविदा सूचना सार्वजनिक बांधकाम विभागाच्या www.mahapwd.com या इंटरनेटसेविल वेबसाइटवर उपलब्ध आहे.

सही/-

कार्यकारी अभियंता,
सार्वजनिक बांधकाम (शक्तिशक्त) विभाग,
कोल्हापूर

Signature of contractor | No. of Corrections | Executive Engineer
## Notice Inviting Tenders

**Government of Maharashtra**  
**Public Works Department**  
**P.W. (South) Division, Kolhapur**  
**Tender Notice No: E Notice No: 22**  
**(Corrigendum No: 1) for Year 2013-2014**

Sealed tender for the following works are invited by the Executive Engineer P.W. (South) Division, Kolhapur, Tarabai Park, PIN No. 416 003 Tel. No. 0231 2650042 from the Contractors registered with the Government of Maharashtra in appropriate class. The blank tender forms shall be issued by Executive Engineer, P.W. (South) Division, Kolhapur, Tarabai Park, PIN No. 416 003 Tel. No. 0231 2650042, Executive, P.W. (South) Division from 5/12/2013 to 16/12/2013 during office hours. Sealed tender forms will be received by the authority mentioned in the table below.

<table>
<thead>
<tr>
<th>Name of Work</th>
<th>Estimated cost Rs.</th>
<th>Earnest Money Rs.</th>
<th>Type &amp; Cost of Tender Form</th>
<th>Time limit for completion (months)</th>
<th>Class of contractor</th>
<th>Tender Receiving Authority</th>
<th>Pre Bid Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Constn of Retaining wall and IlMpts to Curve road on Kolhapur Gargoti Gadlingal Naganwadi road, S.H.189 Km 53/800 to 94/00 (Sect-Harali(Bk) to Hungnhal) Taluka-Gadilingal</td>
<td>35,83,374</td>
<td>35,900</td>
<td>B-1</td>
<td>1000</td>
<td>9</td>
<td>Class V &amp; Above</td>
<td>Executive Engineer P.W. (South) Division, Kolhapur on or before 20/12/2013 up to 17.30 hours</td>
</tr>
<tr>
<td>(2) Constn of Bridge at village-Hasur at Km 30/700 on road from S.H.201 to Yemekond Shirsingi Kine Nesari Kowad Kiagani Hosur Uchgaon to ogin State Border road. MDR.61 Taluka-Chandgad</td>
<td>38,10,365</td>
<td>38,200</td>
<td>B-1</td>
<td>1000</td>
<td>9</td>
<td>Class V &amp; Above</td>
<td>Executive Engineer P.W. (South) Division, Kolhapur on or before 20/12/2013 up to 17.30 hours</td>
</tr>
<tr>
<td>(3) Stng &amp; BT to road form S.H.180 to Kanur Kurani Gavase Ibrahimpur Adkur to join S.H.189 road. MDR 66 Km 4/300 to 7/400 (Sect-Kurani to Gavase) Taluka-Chandgad</td>
<td>35,23,632</td>
<td>35,300</td>
<td>B-1</td>
<td>1000</td>
<td>9</td>
<td>Class V &amp; Above</td>
<td>Executive Engineer P.W. (South) Division, Kolhapur on or before 20/12/2013 up to 17.30 hours</td>
</tr>
<tr>
<td>(4) Stng &amp; BT to road fromSH.189 to Helewadi Bidrewadi Hebbal Jaidyay Bugadk constructed Terans to join State border road. MDR 63 Km 8/500 to 10/00 (Sect-Longnoor Nesan to Mungurwadi) Taluka-Gadilingal</td>
<td>40,87,670</td>
<td>40,900</td>
<td>B-1</td>
<td>1000</td>
<td>9</td>
<td>Class V &amp; Above</td>
<td>Executive Engineer P.W. (South) Division, Kolhapur on or before 20/12/2013 up to 17.30 hours</td>
</tr>
<tr>
<td>(5) Stng &amp; BT to road form GLI 109 to Helewadi Bidrewadi Hebbal Jaidyay Nesan Tegnhal Bugadk constructed Terans to join State border road MDR 63 KM 17/500 to 19/00(Sect-Bugadk to Tegnani) Tal Gadingilal</td>
<td>40,96,542</td>
<td>41,000</td>
<td>B-1</td>
<td>1000</td>
<td>9</td>
<td>Class V &amp; Above</td>
<td>Executive Engineer P.W. (South) Division, Kolhapur on or before 20/12/2013 up to 17.30 hours</td>
</tr>
<tr>
<td>(6) IlMpts to road from SH.177 to Maharpeth Sule Kodawade Masurdi to join MDR 34 road. MDR 35 Km 16/800 to 20/00</td>
<td>26,28,295</td>
<td>26,300</td>
<td>B-1</td>
<td>1000</td>
<td>9</td>
<td>Class V &amp; Above</td>
<td>Executive Engineer P.W. (South) Division, Kolhapur on or before 20/12/2013 up to 17.30 hours</td>
</tr>
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</table>


05/12/2013

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**Signature of contractor**

**No. of Corrections**

**Executive Engineer**
<table>
<thead>
<tr>
<th>Notice Inviting Tenders</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Sect Sawatwadi to Masurli Taluka-Radhanagari</th>
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<table>
<thead>
<tr>
<th>Impts. to road from SH 177 to Akurde Parkhandale Harapwade Gavashi Dhundawade Jaragi Gariwade Gaganbavada road. MDR 10 Kms 13/01 to 14/400 (Sec. Patilwadi to Patrawadi) Taluka-Radhanagari</th>
<th>B-1</th>
<th>9</th>
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<tbody>
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<tr>
<th>Impts. to road from S H 178 to Solankur Parori Ategaon Ani Rajapue Jalakewadi road. MDR 45 Km 15/00 to 18/00(Seet-Rajapur to Wadade) Taluka-Radhanagari</th>
<th>B-1</th>
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<table>
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<tr>
<th>Impts. to Are Sadoli Hasur to join MDR 29 road MDR 35 Km. 19/00 to 21/00(Sect-Pungao to Rashwade) Taluka-Radhanagari</th>
<th>B-1</th>
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<tr>
<td>No Attachments</td>
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<table>
<thead>
<tr>
<th>Impts. to road from SH 178 to join MDR 86 to Sarwade Sawarde Patankar Dhengewadi Pandewadi Avachitwadi Ategaon Avachitwadi Hedwade road. MDR 87 Km 10/20 to 12/20(Sect-Ategaon to Talewadi Phata) Taluka-Radhanagari</th>
<th>B-1</th>
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</thead>
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<td>No Attachments</td>
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<table>
<thead>
<tr>
<th>Impts. to road from SH 193 to Yavlyu Donawade to join SH 17 to Balinge Mahapati Beed Kote Tarale Khurd Pirl Padiari Karwade Diqas Olwan to join SH 178 road. MDR 29 Km 37/50 to 39/500 (Sect-Dhamod to Burambadi) Taluka-Radhanagari</th>
<th>B-1</th>
<th>9</th>
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<tr>
<td>No Attachments</td>
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<tr>
<th>Impts. to road from S H 189 to Gargoli Pushapnagar Vesarde Patgaon road. MDR 52 Km 14/00 to 16/00(Sect-Nawale to Mamadapur phata) Taluka-Bhudargad</th>
<th>B-1</th>
<th>9</th>
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<td>No Attachments</td>
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<tr>
<th>Signature of contractor</th>
<th>No. of Corrections</th>
<th>Executive Engineer</th>
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</table>

before 20/12/2013 upto 17.30 hours.

Executive Engineer, P.W. (South) Dn Kolhapur on or before 20/12/2013 upto 17.30 hours.

Executive Engineer, P.W. (South) Dn Kolhapur on or before 20/12/2013 upto 17.30 hours.

Executive Engineer, P.W. (South) Dn Kolhapur on or before 20/12/2013 upto 17.30 hours.

Executive Engineer, P.W. (South) Dn Kolhapur on or before 20/12/2013 upto 17.30 hours.

Executive Engineer, P.W. (SOUTH) DIVISION, KOLHAPUR. (copy can be obtained free of cost from the Executive Engineer's office on request)

Executive Engineer
P.W. (SOUTH) DIVISION, KOLHAPUR

http://www.mahapwd.com/Nit/Tender.asp?nitno=32031

05/12/2013
GOVERNMENT OF MAHARASHTRA

PUBLIC WORKS DEPARTMENT

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<tr>
<td>1</td>
<td>Name of Work:</td>
<td>S.T.B.T. from S.H. 180 to Kanur Kurni Gavase</td>
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<tr>
<td></td>
<td></td>
<td>Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/ 300 to 7/400, Tal.</td>
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<td></td>
<td>- Chandagad, Dist. - Kolhapur. (Part - Kruni to Gavase)</td>
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<tr>
<td>2</td>
<td>Name of Contract:</td>
<td>M/s. / Shri. ________________________________________________</td>
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<td></td>
<td></td>
<td>________________________________________________________________</td>
</tr>
<tr>
<td>3</td>
<td>Date of receipt of Tender:</td>
<td>:</td>
</tr>
<tr>
<td>4</td>
<td>Amount put to Tender:</td>
<td>Rs. 35,23,632/-</td>
</tr>
<tr>
<td>5</td>
<td>Percentage quoted:</td>
<td>:</td>
</tr>
<tr>
<td>6</td>
<td>Amount of Contract:</td>
<td>:</td>
</tr>
<tr>
<td>7</td>
<td>Agreement No.:</td>
<td>B-1/   - _____ for 2013-2014</td>
</tr>
<tr>
<td>8</td>
<td>No. &amp; Date of work Order:</td>
<td>:</td>
</tr>
<tr>
<td>9</td>
<td>Date of Commencement:</td>
<td>:</td>
</tr>
<tr>
<td>10</td>
<td>Time stipulated for</td>
<td>9 (Nine) Calendar months from the date of written order to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>start work including monsoon period.</td>
</tr>
<tr>
<td>11</td>
<td>Date of completion as per Agreement.</td>
<td>:</td>
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<tr>
<td>12</td>
<td>Actual Date of Completion</td>
<td>:</td>
</tr>
<tr>
<td>13</td>
<td>Reference to Sanction of Extension of Time, if any</td>
<td>1) __________________________________________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) __________________________________________________________</td>
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</tbody>
</table>

Signature of contractor  No. of Corrections  Executive Engineer
DETAILS OF WORKS

NAME OF WORK: S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur.
(Part - Kruni to Gavase)

Estimated cost put to tender: Rs. 35,23,632/-

Earnest Money: Rs. 35,300/-

Term Deposit Receipt of Scheduled Bank /Nationalised Bank/ State Bank of India Challan or Valid E.M.D. Exemption Certificate duly attested shall be uploaded at the time of submission.

Total Security Deposit 4% (Four Percent)

(i) Initial Security Deposit 2%: Rs. 70,500/-

(ii) and Further Security Deposit to be deducted from Running Account (R.A.) Bills: Rs. 70,500/-

Total Security Deposit: Rs.1,41,000/-

Registration Class of Contractor: Class 5 (Five) & above

Validity Period: 120 days from the date of opening

Time Stipulated for Completion: 9 (Nine) months (including monsoon)

TENDER SCHEDULE

Cost of Blank Tender Form: Rs.1,000/-

Download period of online Tender: From 19/11/2013 at 10.00 Hrs. to 16/12/2013 at 17.30 Hrs.

Pre-bid conference date, time and venue

Online Raised any Technical Point Last date and time.

Last date and time for receipt of queries for pre-bid conference online

Last date and time for online bid preparation and Hash-submission by the Contractor (Technical and Financial)

Period of online bid data decryption and re-encryption for tender details by the Contractor

Signature of contractor No. of Corrections Executive Engineer
Date and place where physically and confidentially 
Earnest Money in the form of FDR or attested 
Exemption Certificate and D.D. of Tender Form Fee 
in Original in the Sealed Envelope shall be 
submitted.

23/12/2013 upto 17.30 Hrs. in the 
Office of **Superintending 
Engineer, Public Works Circle, 
Kolhapur.**

**Note :-**

1) Those Contractors who have submitted 
their bids online shall submit -----

a) Earnest Money Deposit in the form of FDR 
in Original or copy of Exemption 
Certificate and  
b) Demand Draft of Tender Form Fee ....  

in the Office of Superintending Engineer, 
Public Works Circle, Kolhapur Or Executive 
Engineer, Public Works (South) Division, 
Kolhapur.

2) Those Contractors who have submitted 
their bids online but not submitted -----

a) Earnest Money Deposit in the form of FDR 
in Original or copy of Exemption 
Certificate and  
b) Demand Draft of Tender Form Fee ....  

in the Office of Superintending Engineer, 
Public Works Circle, Kolhapur Or Executive 
Engineer, Public Works (South) Division, 
Kolhapur.

Will result in forfeiture of Earnest Money 
Deposit and / or cancellation of Empanelment 
/ Registration. Also their Envelope No.2 will 
not be opened.

3)(a) Such non submission of Demand Draft 
of Tender form Fee mentioned at (2) 
above shall be treated as nonpayment 
of amount due from the contractor and 
shall be recovered from the contractor, 
and the recovery from the contractor 
shall proceed as per procedure 
mentioned in Govt. Circular No.CAT-
1278/(58-II)- Desk-2 Dt. 05/01/1979 and 
the tender i.e. opening of envelope No.1 
and 2 shall be carried out as if the 
contractor has paid the tender fee 
amount.
3) (b) The copy of EMD submitted online is as per the requirement of tender condition, and not submitted as (2) above, a letter to the FDR issuing Bank will be given for encashment and encashed amount shall be taken as E.M.D.

With action taken as 3 (a) and 3(b) above even if contractor has not submitted Demand Draft of Tender Form Fee and E.M.D. (as mentioned in 2 (a) and (b) above) the bid opening process shall be done.

4) In case the Demand Draft and Fixed Deposit Receipt submitted on line does not match when he submits it as required under (1) above and bidder tries to mislead the department by submitting wrong information, legal action under Indian Penal Code shall be initiated against the bidder.

5) If the concern office refuse to accept above documents then the contractor should approach the next higher authority in writing immediately.

Place, Date and timing of Opening of Technical and Financial Bid.

Dt.24/12/2013 at 13.01 hrs. to 26/12/2013 at 13.01 Hrs. in the Office of Superintending Engineer, Public Works Circle, Kolhapur.
(if possible)

If it is not possible to open it on the date specified above, the Bid opening authority shall communicate the change in opening date which shall not be less than three working days after the date of communication (Excluding date of communication) on E-tendering web-site.
TO BE FILLED BY THE CONTRACTOR.

I/We have quoted my/our offer in percentage rate in words as well as in figures. I/ We further undertake to enter into contract in regular “B-1” form in Public Works Department.

Name of signature of contractor :

Power of Attorney holder

with complete address.

Signature of Contractor
GOVERNMENT OF MAHARASHTRA
Public Works Department
INVITATION FOR TENDEREDRE
DETAILED TENDER NOTICE

Name of Work :- S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur. (Part - Kruni to Gavase)

Online tender in form B-1 Percentage Basis are invited by the Executive Engineer, Public Works (South) Division, Kolhapur on behalf of Government of Maharashtra for the following work from Contractors registered in appropriate class of the Public Works Department of Maharashtra State under E-procurement procedure. The name of work, estimated cost, earnest money, security deposit, time limit for work completion etc. are as under.

<table>
<thead>
<tr>
<th>System Tender No.</th>
<th>Notice No.</th>
<th>Name of Work</th>
<th>Approximate value of work (Rs.)</th>
<th>Earnest Money (Rs.)</th>
<th>Cost of documents (Rs.)</th>
<th>Period of Completion</th>
<th>Class of Contractor</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>1.</td>
<td></td>
<td>S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur. (Part - Kruni to Gavase)</td>
<td>Rs. 35,23,632/-</td>
<td>Rs. 35,300/-</td>
<td>Rs. 1,000/-</td>
<td>9 (Nine) Calendar months including monsoon</td>
<td>Class V (Five) and above</td>
</tr>
</tbody>
</table>

Tender form, Condition of contract, specifications and contract drawings can be downloaded from the eTendering portal of Public Works Department, Government of Maharashtra i.e. http://pwd.maharashtra.etenders.in after entering the details payment of Rs.1,000/- (Rupees One thousand only) in the form of D.D./ Pay order of Scheduled or Nationalised bank in favour of Executive Engineer, Public Works (South) Division, Kolhapur as per the Tender Schedule. Further information regarding the work can be obtained from the above office.

The Tender Fee in the form of D.D./ Pay Order drawn on the name of Executive Engineer, Public Works (South) Division, Kolhapur. Attested EMD Exemption Certificate, Affidavit should be submitted by Registered Post / Courier service in sealed covers addressed to the Superintending Engineer, Public Works Circle, Kolhapur with the name of work written at the top of the envelope will be received in the office of the Superintending Engineer, Public Works Circle, Kolhapur, Bandhkam Bhavan, Tarabai Park, Near Head Post Office, Kolhapur – 416 003. (Phone - (0231) 2654861 / FAX - (0231) 2650140) as per the Tender Schedule. Bids will be open as per the Tender Schedule, in the presence of such intending Tenderers or his / their authorised representatives who may be present at that time.

TENDERING PROCEDURE :-

1. Blank Tender Form :-

Signature of contractor | No. of Corrections | Executive Engineer
Tender forms can be downloaded from the eTendering Portal of Public Works Department, Government of Maharashtra i.e. http://pwd.maharashtra.etenders.in after entering the details of payment towards Tender Fees as per the Tender Schedule.

2. PRE-TENDER CONFERENCE:

2.1 Pre-tender conference open to all prospective tenderers who have downloaded tender form before the date of Pre-tender Conference, will be held at Kolhapur on /2013 at 15.00 Hrs. in the office of the Superintending Engineer, Public Works Circle, Kolhapur. - 416 003 Phone No. 0231/2654861 / Fax No. 0231/2650140 wherein prospective Tenderers will have an opportunity to obtain clarifications regarding the work and the Tender Conditions. The prospective tenderers may also post their queries only using post query option for the tender.

2.2 The prospective tenderers are free to ask for any additional information or clarification either in writing or orally concerning the work, and the reply to the same shall be uploaded on the portal http://pwd.maharashtra.etenders.in and this clarification referred to as Common Set of Conditions/Deviations (C.S.D.), shall form part of tender documents and which will also be common and applicable to all tenderers. The point/points if any raised in writing and/or verbally/online by the contractor in pre-tender conference and not finding place in C.S.D. issued after the pre-bid conference, is/are deemed rejected. In such case the provision in NIT shall prevail. No individual correspondence will be made thereafter with the contractor in this regard.

3.1 The tender submitted by the tenderer shall be based on the clarification, additional facilities offered (if any) by the Department, and this tender shall be unconditional. Conditional tenders shall be summarily REJECTED.

3.2 All tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditional tenders will be treated as non responsive. The tendered should clearly mention in forwarding letter that his offer (in envelope No.1 and 2) dose not contain any conditions, deviations from terms and conditions stipulated in the tender.

3.3 Tenderers should have valid Class II/III Digital Signature Certificate (DSC) obtained from any Certifying Authorities. In case of requirement of DSC, interested Bidders should go to http://maharashtra.etenders.in/ mah/DigitalCert.asp and follow the procedure mentioned in the document ‘Procedure for application of Digital Certificate’.

3.4 The Tenderers have to make a payment of Rs.1,038/- online as service charges for the use of Electronic Tendering during Online Bid Data Decryption and Re-encryption stage of the Tender.

3.5 For any assistance on the use of Electronic Tendering System, the Users may call the below numbers:
   Landline No. - 020 - 2531 5555 / 56
   Mobile No. - 91679 69601 / 04 / 14

3.6 Tenderers should install the Mandatory Components available on the Home Page of http://maharashtra.etenders.in under the section ‘Mandatory Components’ and
make the necessary Browser Settings provided under section ‘Internet Explorer Settings’.

3.7 Guidelines to Bidders on the operations of Electronic Tendering System of Public Works Department

http://pwd.maharashtra.etenders.in

A. Pre-requisites to participate in the Tenders processed by PWD:

1. Enrolment of Contractors on Electronic Tendering System:

The Contractors interested in participating in the Tenders of Public Works Department – processed using the Electronic Tendering System shall be required to enrol on the Electronic Tendering System to obtain User ID.

After submission of application for enrolment on the System, the application information shall be verified by the Authorized Representative of the Service Provider. If the information is found to be complete, the enrolment submitted by the Vendor shall be approved.

For participating in Limited and Restricted tenders the registered vendors have to apply for empanelment on the sub-portal of PWD in an appropriate class of registration. The empanelment will have to be approved by the respective officer from the PWD. Only empanelled vendors will be allowed to participate in such tenders.

The Contractors may obtain the necessary information on the process of enrolment and empanelment either from Helpdesk Support Team or may visit the information published under the link Enrol under the section E-Tendering Toolkit for Bidders on the Home Page of the Electronic Tendering System.

2. Obtaining a Digital Certificate:

The Bid Data that is prepared online is required to be encrypted and the hash value of the Bid Data is required to be signed electronically using a Digital Certificate (Class–II or Class–III). This is required to maintain the security of the Bid Data and also to establish the identity of the Contractor transacting on the System.

The Digital Certificates are issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities of Government of India through their Authorized Representatives upon receipt of documents required to obtain a Digital Certificate.

Bid data / information for a particular Tender may be submitted only using the Digital Certificate which is used to encrypt the data / information and sign the hash value during the Bid Preparation and Hash Submission stage. In case, during the process of preparing and submitting a Bid for a particular Tender, the Contractor loses his / her Digital Signature Certificate (i.e. due to virus attack, hardware problem, operating system problem); he / she may not be able to submit the Bid online. Hence, the Users are advised to store his / her Digital Certificate securely and if possible, keep a backup at safe place under adequate security to be used in case of need.
In case of online tendering, if the Digital Certificate issued to an Authorised User of a Partnership Firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate / power of attorney to that User to submit the bid on behalf of the Partnership Firm. The Partnership Firm has to authorize a specific individual via an authorization certificate signed by a partner of the firm (and in case the applicant is a partner, another partner in the same form is required to authorise) to use the digital certificate as per Indian Information Technology Act, 2000.

Unless the Digital Certificate is revoked, it will be assumed to represent adequate authority of the Authority User to bid on behalf of the Firm for the Tenders processed on the Electronic Tender Management System of Government of Maharashtra as per Indian Information Technology Act, 2000. The Digital Signature of this Authorized User will be binding on the Firm. It shall be the responsibility of Partners of the Firm to inform the Certifying Authority or Sub Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Signature Certificate. The procedure for application of a Digital Signature Certificate will remain the same for the new Authorised User.

The same procedure holds true for the Authorized Users in a Private / Public Limited Company. In this case, the Authorisation Certificate will have to be signed by the Director of the Company or the Reporting Authority of the Applicant.

For information on the process of application for obtaining Digital Certificate, the Contractors may visit the section Digital Certificate on the Home Page of the Electronic Tendering System.

3. **Recommended Hardware and Internet Connectivity :**

To operate on the Electronic Tendering System, the Contractors are recommended to use Computer System with at least 1 GB of RAM and broadband connectivity with minimum 512 kbps bandwidth.

4. **Set up of Computer System for executing the operations on the Electronic Tendering System :**

To operate on the Electronic Tendering System of Government of Maharashtra, the Computer System of the Contractors is required be set up. The Contractors are required to install Utilities available under the section Mandatory Installation Components on the Home Page of the System.

The Utilities are available for download freely from the above mentioned section. The Contractors are requested to refer to the E-Tendering Toolkit for Bidders available online on the Home Page to understand the process of setting up the System, or alternatively, contact the Helpdesk Support Team on information / guidance on the process of setting up the System.
5. **Payment for Service Provider Fees**:

In addition to the Tender Document Fees payable to PWD, the Contractors will have to pay Service Providers Fees of **Rs.1,038/-** through online payments gateway service available on Electronic Tendering System. For the list of options for making online payments, the Contractors are advised to visit the link E-Payment Options under the section E-Tendering Toolkit for Bidders on the Home Page of the Electronic Tendering System.

B **Steps to be followed by Contractors to participate in the e-Tenders processed by PWD**

1. **Preparation of online Briefcase**:

   All Contractors enrolled on the Electronic Tendering System of Government of Maharashtra are provided with dedicated briefcase facility to store documents / files in digital format. The Contractors can use the online briefcase to store their scanned copies of frequently used documents / files to be submitted as a part of their bid response. The Contractors are advised to store the relevant documents in the briefcase before starting the Bid Preparation and Hash Submission stage.

   In case, the Contractors have multiple documents under the same type (e.g. multiple Work Completion Certificates) as mentioned above, the Contractors advised to either create a single `.pdf` file of all the documents of same type or compress the documents in a single compressed file in `.zip` or `.rar` formats and upload the same.

   It is mandatory to upload the documents using the briefcase facility. Therefore, the Contractors are advised to keep the documents ready in the briefcase to ensure timely bid preparation.

   **Note**: Uploading of documents in the briefcase does not mean that the documents are available to PWD at the time of Tender Opening stage unless the documents are specifically attached to the bid during the online Bid Preparation and Hash Submission stage as well as during Decryption and Re-encryption stage.

2. **Online viewing of Detailed Notice Inviting Tenders**:

   The Contractors can view the Detailed Tender Notice along with the Time Schedule (Key Dates) for all the Live Tenders released by PWD on the home page of PWD e-Tendering Portal on **http://pwd.maharashtra.etenders.in** under the section Recent Online Tender.

3. **Download of Tender Documents**:

   The Pre-qualification / Main Bidding Documents are available for free downloading. However to participate in the online tender, the bidder must purchase the bidding documents online by filling up details of Demand Draft towards the cost of Tender Form Fee.
4. **Online Bid Preparation and Submission of Bid Hash (Seal) of Bids:**

Submission of Bids will be preceded by online bid preparation and submission of the digitally signed Bid Hashes (Seals) within the Tender Time Schedule (Key Dates) published in the Detailed Notice Inviting Tender. The Bid Data is to be prepared in the templates provided by the Tendering Authority of PWD. The templates may be either form based, extensible tables and / or uploadable documents. In the form based type of templates and extensible table type of templates, the Contractors are required to enter the data and encrypt the data using the Digital Certificate.

In the uploadable document type of templates, the Contractors are required to select the relevant document / compressed file (containing multiple documents) already uploaded in the briefcase.

**Notes:**

a. The Contractors upload a single document or a compressed file containing multiple documents against each unloadable option.

b. The Hashes are the thumbprint of electronic data and are based on one–way algorithm. The Hashes establish the unique identity of Bid Data.

c. The bid hash values are digitally signed using valid Class–II or Class–III Digital Certificate issued any Certifying Authority. The Contractors are required to obtain Digital Certificate in advance.

d. After the hash value of bid data is generated, the Contractors cannot make any change / addition in its bid data. The bidder may modified bids before the deadline for Bid Preparation and Hash Submission as per Time Schedule mentioned in the Tender documents.

e. This stage will be applicable during both, Pre-bid / Pre-qualification and Financial Bidding Processes.

5. **Close for Bidding (Generation of Super Hash Values):**

After the expiry of the cut – off time of Bid Preparation and Hash Submission stage to be completed by the Contractors has lapsed, the Tender will be closed by the Tender Authority.

The Tender Authority from PWD shall generate and digitally sign the Super Hash values (Seals).

6. **Decryption and Re-encryption of Bids (submitting the Bids online):**

After the time for generation of Super Hash values by the Tender Authority from PWD has lapsed, the Contractors have to make the online payment of **Rs.1,038/-** towards the fees of the Service Provider.

After making online payment towards Fees of Service Provider, the Contractors are required to decrypt their bid data using their Digital Certificate and immediately re-encrypt their bid data using the Public Key of the Tendering Authority. The Public Key of the Tendering Authority is attached to the Tender during the Close for Bidding stage.
Note: The details of the Processing Fees shall be verified and matched during the Technical Opening stage.

At this time, the Contractors are also required to upload the files for which they generated the Hash values during the Bid Preparation and Hash Submission stage.

The Bid Data and Documents of only those Contractors who have submitted their Bid Hashes (Seals) within the stipulated time (as per the Tender Time Schedule), will be available for decryption and re-encryption and to upload the relevant documents from Briefcase. A Contractor who has not submitted his Bid Preparation and Hash Submission stage within the stipulated time will not be allowed to decrypt / re-encrypt the Bid data / submit documents during the stage of Decryption and Re-encryption of Bids (submitting the Bids online).

7. Short listing of Contractors for Financial Bidding Process:

The Tendering Authority will first open the Technical Bid documents of all Contractors and after scrutinizing these documents will shortlist the Contractors who are eligible for Financial Bidding Process. The short listed Contractors will be intimated by email.

8. Opening of the Financial Bids:

The Contractors may remain present in the Office of the Tender Opening Authority at the time of opening of Financial Bids. However, the results of the Financial Bids of all Contractors shall be available on the PWD e-Tendering Portal immediately after the completion of opening process.

9. Tender Schedule (Key Dates):

The Contractors are strictly advised to follow the Dates and Times allocated to each stage under the column “Contractor Stage” as indicated in the Time Schedule in the Detailed Tender Notice for the Tender. All the online activities are time tracked and the Electronic Tendering System enforces time-locks that ensure that no activity or transaction can take place outside the Start and End Dates and Time of the stage as defined in the Tender Schedule.

At the sole discretion of the Tender Authority, the time schedule of the Tender stages may be extended.

A) Civil Works

1.1 ONLINE ENVELOPE No. 1: (Documents)

The First Online envelope "Envelope No. 1" shall contain the following documents:

1.1.1 Scanned copy of Government treasury challan or Term Deposit Receipt valid for a period of one year from any Schedule / Nationalised Bank for the amount of Earnest Money, or valid certificate of exemption from payment of earnest money of the value of Rs.35,300/- (in words Rupees Thirty five thousand three hundred only) if applicable (true copy attested by a Gazetted Officer to be Submitted as per the tender Schedule).
1.1.2 Scanned copy of Valid certificate as a Registered Contractor with the Government of Maharashtra in appropriate class.

1.1.3 Scanned copy of Sales Tax Registration Certificate in Form II, Rule 4(1) as provided by Maharashtra State, Sales Tax Act. (Maharashtra Act No.XXVI of 1989. The Maharashtra Sales Tax on transfer of property in Goods involved in execution of works contract (Re-enacted Act, 1989) from the Sales Tax Department of Maharashtra State, (in original or a copy duly attested by a Gazetted Officer.)

OR
Scanned copy of A Xerox copy of valid VAT registration certificate from Maharashtra State Sale Tax Department duly attested by the Gazetted Officer. (Maharashtra Value Added Tax Act 2005)

1.1.4 The list of Machinery and plants immediately available with the tenderer for use on this work and list of machinery proposed to be utilized on this work, but not immediately available and the manner in which it is proposed to be procured (in form No.II on Page No.36) Good quality centering plates of marine ply wood and sand washing machine must be available with the contractor.

1.1.5 Proof of appointment of employees including technical personnel by way of valid Professional Tax Registration certificate in form PT/R/ under section (I) of section 5 of Maharashtra Sales Tax on Profession, Trade, Callings and employment Act, 1975, rule 3(2) from the Professional Tax Officer of the concerned District in Maharashtra. The Professional Tax Clearance Certificate with list of Employees duly attested by Professional Tax Officer shall be enclosed.

1.1.6 Details of work done during last three years with the value of work unfinished. (Information to be given in Form No.VI on Page No.40). Supported by the Work Done Certificate given by the Executive Engineer of the concerned division.

1.1.7 Details of work of similar type and magnitude carried out by the contractor, (in form No.III on Page No.37).

1.1.8 Details of list of works in hand and works tendered for. (Information to be given in Performa of Form No. I on Page No.35)

1.1.9 Details of Technical Personnel on the rolls of the tenderer. (Information to be given in Performa of Form No. V on Page No.39)

1.1.10 Details of work carried out in the interior backward and Hilly area during preceding three years. (Information to be given in Performa of Form No. IV on Page No.38)

1.1.11 Scanned copy of Partnership Deed and Power of Attorney, in case of a firm tendering for work. (True copy attested by a Gazetted Officer.)

Signature of contractor No. of Corrections Executive Engineer
1.1.12 USE OF SPECIALISED MACHINERY :- (Hot mix component less than 75 lakh)

(A) Scanned copy of proof of ownership of (a) MODERN DRUM MIX PLANT conforming to Clause No. 501.3.4 of M.O.R.T.& H Specifications (4th Revision, August 2001 edition and as directed by Engineer-in-charge). (b) MECHANICAL SPRAYER (c) MECHANICAL PAVER FINISHER OR PAVER FINISHER with electronic sensing device as per Clause No. 503.3.5 of M.O.R.T.& H Specifications (4th Revision, August 2001 edition) (d) VIBRATORY ROLLER AND POWER ROLLER of 8 to 10 Tones capacity mentioned in Proforma "2A" attached herewith, shall be enclosed.

OR

In case the tenderer intends to hire the machinery which is required for this work, Scanned copy of Legal Agreement in the format attached herewith under the Heading "Articles of Agreement" executed on appropriate stamp paper for procuring (a) MODERN DRUM MIX PLANT (b) MECHANICAL SPRAYER (c) MECHANICAL PAVER FINISHER OR PAVER FINISHER with electronic sensing device (d) VIBRATORY ROLLER AND POWER ROLLER of 8 to 10 Tones capacity conforming to Clause No. 501.3.4 of M.O.R.T.& H Specifications (4th Revision, August 2001 edition) on hire from another agency, who owns this machinery if the contractor does not own himself this machinery. (Scanned copy of proof of ownership i.e. invoices, shall have to be attached along with the legal agreement for hiring.)

OR

(B) Scanned copy of Affidavit

In case of Contractor intends to carry out BT work with Hot Mix Plant Batch Type, in lieu own drum mix plant (other machineries remaining the same),

a) Tenderer shall furnish details of ownership in proforma 2 A.

OR

b) If hot mix plant (Batch Type) is not owned by contractor at the time of tendering then conditions for installing Hot Mix Plant with Electronic Control (minimum 80 TPH capacity Batch Mix Type)

(I) Contractor shall install Batch type Hot Mix Plant with Electronic Control of minimum 80 tones per hour capacity within 75 days from the date of issue of work order.

(II) If the contractor wants to procure / purchase/hire, Hot Mix Plant with Electronic Control of minimum 80 tones per hour capacity Batch Mix Type as mentioned above, he should submit necessary firm purchase order placed on manufacturer of repute/Legal Agreement in the format attached herewith under the Heading "Articles of Agreement" executed on appropriate stamp paper for hiring Hot Mix Plant Batch Type in envelope number one.

(III) He shall give trial run on or before 75th day from the date of issue of work order.

(IV) In Envelope no.1 the bidder shall submit an additional Security, of Rs.10,00,000/- (Rupees Ten Lakh Only) in the form of FOR drawn in the name of Executive Engineer, PW east division, Pune payable at pune. If Contractor fails to give trial run
of this batch mix plant on or before 75th day, from the date of issue of the said Work Order, his above said additional Security shall be encashed without any notice to the contractor without considering any force majeure and shall be credited to Government revenue by the Engineer Incharge immediately on 76th day.

(V) Encashment of additional Security deposit as mentioned above shall not absolved the Contractor from the responsibility of installing the Batch Mix Plant which is required for carrying out Hot Mix Work. **At the same time the above amount Rs.10,00,000/- so encashed shall not be refunded.**

(VI) No extension of time limit shall be granted at any level for giving trial run after 75th day from the date of issue of work order.

(C) Once the option of Drum mix Hot Mix plant or Batch Type Hot Mix Plant is exercised at the time of submitting the bid, it shall be mandatory to carry out the work by the same type of Hot Mix Plant.

1.2 **ONLINE ENVELOPE No.2 TENDER: (FINANCIAL BID)**

The second online envelope "Envelope No. 2" shall contain only the main tender including the Common Set of Conditions / Deviation issued by the Department after the pre-tender Conference. A tender submitted without this would be considered as invalid.

The Tenderer should quote his offer duly signed in terms of percentage of estimated rates at the appropriate place of tender documents to be submitted only in Envelope No.2. He should not quote his offer anywhere directly or indirectly in Envelope No.1. The contractor shall quote for the work as per details given in the main tender and also based on the detailed set of conditions issued / Additional stipulations made by the Department as informed to him by a letter from Chief Engineer / Superintending Engineer after Pre-Tender Conference. His tender shall be unconditional.

1.3 **SUBMISSION OF TENDER:**

Refer to Section ‘Guidelines to Bidders on the operations of Electronic Tendering System of Public Works Department’ for details Superintending Engineer, Public Works Circle, Kolhapur. (Phone : 0231/ 2654861, Fax No.(0231) 2650140)
1.4 **OPENING OF TENDERS :-**

On the date, specified in the Tender Schedule, following procedure will be adopted for opening of the Tender.

**(A) ENVELOPE No. 1 :- (Documents)**

First of all Envelope No. 1 of the tender will be opened online to verify its contents as per requirements. If the various documents contained in this envelope do not meet the requirements of the Department, a note will be recorded accordingly by the tender opening authority and the said tenderers Envelope No.2 will not be considered for further action and the same will be recorded.

The decision of the tender opening authority in this regard will be final and binding on the contractors.

**(B) ENVELOPE No. 2 :- (Financial Bid)**

a) This envelope shall be opened online immediately after opening of Envelope No. 1, only if contents of Envelope No. 1 are found to be acceptable to the Department. The tendered rates in Schedule 'B' or percentage above/below the estimated rates shall then be read out in the presence of bidders who remain present at the time of opening of Envelope No. 2.

1.5 **EARNEST MONEY :-**

Earnest money will be accepted in the form of certificate of exemption from payment of Earnest Money, or Term Deposit receipts valid for a period of one year (separately for each work) from the last date of submission of tender forms, issued by Nationalised or scheduled Bank and endorsed in the name of the Executive Engineer, Public Works (South) Division, Kolhapur. The earnest money will be refunded in due course in case of tenderers whose tenders are not accepted. In case of successful tenderer the Earnest money will be refunded after recovering initial security deposit and completion of contract documents by the Tenderer. The amount of Earnest Money will be forfeited to Government in case the successful contractor does not pay the amount of initial security deposit within specified time limit. Earnest Money Exemption Certificate shall not be accepted in lieu of Earnest Money indicated elsewhere in the N.I.T. except in case of those bidders who have obtained Earnest Money exemption certificate after payment of `Rs.1.50 Lakh` to their Registration authorities after issuance of Government Resolution CAT - 1096/CR - 172/Bldg-2 Dated 20/4/98.

1.6 **SECURITY DEPOSIT :-**

The successful tenderer shall have to pay half the security deposit in approved security form (preferably in the form of National Saving Certificate) or in cash or in the form of Bank Guarantee (in the form as prescribed by Government) from any Schedule / Nationalised Bank and balance Security Deposit will be recoverable through the R.A. bills at the percentage as shown in item(s) of the Memorandum in printed B-1 form or as may be decided by the Executive Engineer during course of execution of the work looking to the position and circumstances that may prevail, whose orders will be final and binding on the contractor.
The security deposit for the due performance of the contract shall be as detailed in the Tender Documents elsewhere. Fifty percent of the security deposit will have to be deposited within ten days (including Government holidays) of the acceptance of the tender and the remaining fifty percent will be recovered from the Running Bills at the rate as specified in the tender form, on the cost of work as per C.S.R. prevailing at the time of acceptance of tender. Amount of total security deposit to be paid shall be 4 % of the cost of work, worked out as per D.S.R. for the respective District. Initial Security Deposit may be in Bank Guarantee form in format on Page 47 & 48 of tender document for full period of completion of work and it should be extendable up to expiry of valid extension if any, as directed by Engineer-in-charge.

1.7. A. **Condition for payment of additional security deposit, if offer quoted by the tenderer is lesser than 15% below the cost put to tender.**

The contractor shall deposit an additional security deposit along with the security deposit as per clause 1.9 within 10 days of acceptance of tender in the form of Bank guarantee, when the below percentage quoted is more than 15% of cost put to tender.

The amount of security deposit shall be worked out as per following formula.

\[
\text{Additional Security Deposit} = \frac{\text{Rs.} \left( \frac{\text{rate quoted by the contractor} - 15}{100} \right) \times 50}{100} \times \text{Cost put tender (i.e. Rs.35,23,632/-)}
\]

If the contractor does not deposit this additional security deposit (if applicable) within stipulated time then his earnest money deposit will be forfeited and his tender will not be considered for acceptance.

This additional security deposit shall be extendable up to expiry of valid extensions if any and it shall be refunded along with the final bill, after satisfactory completion of work.

(Condition for Performance Security Deposit if the offer is received more than 15% below)

"In case the tenderer offers the rates lower than 15% below the estimated cost put to tender, in that case, the tenderer will have to pay Additional Security Deposit along with the Initial Security Deposit, for performance of work. The amount of Additional Security Deposit shall be amount exceeding 15% below offer, in the form of demand draft or interest bearing securities of Nationalised Bank/ Scheduled Bank, pledged in favour of the Executive Engineer or in the form of Bank Guarantee for full period of completion of work".

1.8 **ISSUE OF FORMS :-**

Information regarding contract as well as blank tender forms can be downloaded from the eTendering website upon providing the details of the payment of cost as detailed in the N.I.T. Executive Engineer, Public Works (South) Division, Kolhapur.
1.9 **TIME LIMIT :-**
The work is to be completed within time limit as specified in the N.I.T. which shall be reckoned from the date of written order for commencing the work and shall be inclusive of monsoon period.

1.10 **TENDER RATE :-**
No alteration in the form of tender and the schedule of tender and no additions in the scope of special stipulations will be permitted. Rates quoted for the tender shall be taken as applicable for all leads and lifts.

1.11 **TENDER UNITS :-**
The tenderers should particularly note the units mentioned in the Schedule "B" on which the rates are based. No change in the units shall be allowed. In the case of difference between the rates written in figures and in words, the correct rate will be the one; which is lower of the two.

1.12 **CORRECTION :-**
No corrections shall be made in the tender documents. Any corrections that are to be made shall be made by crossing the incorrect portion and writing the correct portions above with the initials of tenderer.

1.13 **TENDER'S ACCEPTANCE :-**
Acceptance of tender will rest with the Superintending Engineer, Public Works Circle, Kolhapur who reserves the right to reject any or all tenders without assigning any reason therefore. The tenderer whose tender is accepted will have to enter into a regular B-I agreement within 10 days of being notified to do so. In case of failure on the part of Tenderer to sign the agreement within the stipulated time, the earnest money paid by him shall stand forfeited to the Government and the offer of the tenderer shall be considered as withdrawn by him.

1.14 **CONDITIONAL TENDER :-**
The tenders who do not fulfill the condition of the notification and the general rules and directions for the guidance of contractor in the agreement form or are incomplete in any respect are likely to be rejected without assigning any reason therefore.

1.14(a) The Tenderers shall be presumed to have carefully examined the drawings, conditions and specifications of the work and have fully acquainted themselves with all details of the site, the conditions of rock and its joints, pattern, river, weather characteristics, labour conditions and in general with all the necessary information and data pertaining to the work, prior to tendering for the work.

1.14(b) The data whatsoever supplied by the Department along with the tender documents are meant to serve only as guide for the tenderers while tendering and the Department accepts no responsibility whatsoever either for the accuracy of data or for their comprehensiveness.

1.14(c) The quarries for extraction of metal, murum etc. provided in the sanctioned estimate are as per survey conducted by the Department. The Contractor should however examine these quarries and see whether full quantity of materials required for execution of the work strictly as per specification are available in these source before

| Signature of contractor | No. of Corrections | Executive Engineer |
quoting the rates. In case the materials are not available due to reasons whatsoever, the contractor will have to bring the materials from any other source with no extra cost to Government. The rates quoted, should therefore be for all leads and lifts from wherever the materials are brought at site of work and inclusive of royalty to be paid to the Revenue Department by the Contractor.

**POWER OF ATTORNEY:-**

If the tenderers are a firm or company, they should in their forwarding letter mention the names of all the partners together with the name of the person who holds the power of Attorney, authorizing him to conduct all transactions on behalf of the body, along with the tender.

1.15 The tenderer may, in the forwarding letter, mention any points are may wish to make clear but the right is reserved to reject the same or the whole of the tender if the same becomes conditional tender thereby.

1.16 The contractor or the firms tendering for the work shall inform the Department if they appoint their authorized Agent on the work.

1.17 No foreign exchange will be released by the Department for the purchase of plants and machinery for the work by the Contractor.

1.18 Any dues arising out of contract will be recovered from the contractor as arrears of Land Revenue, if not paid amicably. Moreover, recovery of Government dues from the Contractors will be affected from the payment due to the Contractor from any other Government works under execution with them.

1.19 All pages of tender documents, conditions, specifications, correction slips etc. shall be initialed by the tenderer. The tender should bear full signature of the tenderer, or his authorized power of Attorney holder in case of a firm.

1.20 The Income Tax at 2.00 % including surcharge or percentage in force from time to time or at the rate as intimated by the competent Income Tax authority shall be deducted from bill amount whether measured bill, advance payment or secured advance.

1.21 The successful tenderer will be required to produce, to the satisfaction of the specified concerned authority a valid concurrent license issued in his favour under the provisions of the Contract Labour (Regulation and Abolition) Act 1970 for starting the work. On failure to do so, the acceptance of the tender shall be liable to be withdrawn and also liable for forfeiture of the earnest money.

1.22 The tenderer shall submit the list of apprentices engaged by the Contractor under Apprentice Act.

1.23 **VALIDITY PERIOD :-**

The offer shall remain open for acceptance for minimum period of 120 days from the Date of opening of Envelope No. 2 (Financial Bid) and thereafter until it is withdrawn by the contractor by notice in writing duly addressed to the authority opening the tender and sent by Registered Post Acknowledgment due.
नमुना सत्यप्रतिज्ञा लेख (Affidavit)

मी _________________________________________________ वय वर्ष _______

राहणार __________________________________________________________________________________

_______________________________________________________________________ या सत्यप्रतिज्ञा लेखाद्वारे लिहून देतो की, मी __________________________________________________________________________________

nya /FORM7A/ या फर्मचा /

कंपनीचा प्रोप्रायटर असून __________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

या कामासाठी निविदा सादर केली आहे. त्या निविदेच्या मध्ये जी कागदपत्रांत सादर केली आहेत ती खरी, बरोबर व पूर्ण आहेत. यामध्ये कोणत्याही तुटी, चुका नाहीत असे शपथपूर्वक मान्य करीत आहे. या कागदपत्रांमध्ये काही चुकीच्या, दिशामुळे करणारी, खोटी व तसेच अपूर्ण माहिती आढळत्यास मी कायदेशीर कार्यवाहीस पात्र आहे व राहील.

कंट्राटदाराची सही व शिक्का
(On Stamp Paper worth Rs.100/-)
सत्यप्रतिज्ञा लेख
(Affidavit / Notary)

मी __________________________________________

_________________________ वय वर्ष __________ या सत्यप्रतिज्ञा लेखादारे

लिहून देतो की मी __________________________________________

_________________________ या फर्मचा मालक / कंपनीचा प्रोप्रायटर / भागीदार असून

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________ या कामासाठी निविदा सादर केली आहे.

सदर कामामध्ये हाउं मिक्स प्लॅटचे / सेंसर पेदचे डांबरीकरणाचे काम मी निविदा

शरीरूसार व स्पेसिफिकेशन नुसार वेळेत पूर्ण करून देईल. तसेच सदर हाउं मिक्सचे काम

करण्यासाठी लागणारे हाउं मिक्स प्लॅट, सेंसर पेदर, रोलर इत्यादी सर्व अनुप्रयुक्त मशीनी प्रत्यक्ष

काम करतेचेच उपलब्ध करून काम करून घेतून सदरचे काम पूर्ण करून देण्याची जबाबदारी

सर्वस्वी माझी आहे.

सदरचे काम माझेकडून वरील मशीनीरे पूर्ण न झालेले शासनाध्य होणावा या नुकसानीस

मी जबाबदार राहिल व त्यानुसार मी / आम्ही कायदेच्या कारवाईस पात्र राहिल.

दिनांक : सही

ठिकाण : नाव

Signature of contractor No. of Corrections Executive Engineer
नमुना सत्यप्रतिज्ञा लेखा (Affidavit)

मी ____________________________ वय वर्ष __________
राहणार __________________________
_____________________________ या सत्यप्रतिज्ञा लेखाद्वारे लिहून देतो की, मी ____________________________ या फर्मचा /
कंपनीचा प्रोप्रायटर असून ____________________________
_____________________________ या कामासाठी
निविदा सादर केली आहे.

माझ्या मालकीचा अथवा मी ____________________________
यांच्याकडून भाडेकरारावने घेतलेला ढूंग भिक्स प्लांट हा कामाच्या जागेपासून ४० कि.मी. चे आत
असलेल्याने मी स्वतः क्षात्री केलेली आहे. हे शपथपूर्वक मान्य करून आहे.

कंट्राक्टदाराची सही व शिक्षक

Signature of contractor No. of Corrections Executive Engineer
FORM NO. I

List of works tendered for and in hand as on the date of submission of this tender _____________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Place and country</th>
<th>Work in hand</th>
<th>Anticipated date of completion</th>
<th>Works tendered for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tendered cost</td>
<td>Cost of Remaining Work</td>
<td>Estimated Cost</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

------------ SPECIMEN -----------
FORM NO. II

List of plant and machinery immediately available with the tenderer for this work

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of Equipment</th>
<th>No. of Units</th>
<th>Kind and Make</th>
<th>Capacity</th>
<th>Age and Condition</th>
<th>Present Location</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

------------- SPECIMEN -------------
FORM NO. III

Details of works of similar type and magnitude carried out by the contractor.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Cost of work</th>
<th>Date of starting</th>
<th>Stipulated date of completion</th>
<th>Actual date of completion</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

---------- SPECIMEN ----------
FORM NO. IV

List of works carried out in the interior backward, and hilly areas during the preceding 3 years.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Cost of work</th>
<th>Date of starting</th>
<th>Date of completion</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

--------- SPECIMEN ---------
### FORM NO. V

**Details Of Technical Personnel Available with The Contractor.**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of person</th>
<th>Qualification</th>
<th>Whether working in field or in office</th>
<th>Experience of execution of similar works</th>
<th>Period for which the person is working with the tenderer</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

------------- SPECIMEN -------------
FORM NO. VI

STATEMENT SHOWING WORK DONE IN ALL CLASSES OF CIVIL ENGINEERING CONSTRUCTION WORKS

NAME OF CONTRACTOR: ________________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Amount Put to Tender/Tendered cost</th>
<th>Agreement No.</th>
<th>Date of Commencement</th>
<th>Amount of work done during each of last three years (Rs. in lakhs)</th>
<th>Amount of work still remaining to be executed 2012-2013 (Rs. in lakhs)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2009-2010</td>
<td>2010-2011</td>
<td>2011-2012</td>
</tr>
<tr>
<td>1</td>
<td></td>
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<tr>
<td>3</td>
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</tr>
</tbody>
</table>

Grand Total: -

Outward No. and Date of Certificate issuing authority

Signature of Contract: ____________________________
No. of Corrections: ____________________________
Executive Engineer: ____________________________
STATEMENT NO. 2'A'

(Applicable for use of modern machinery for asphalting is specified)

QUESTIONNAIRE ON MODERN MACHINERY: Owned or Hired

Proforma for information regarding machinery required for this work.

A) I) MODERN DRUM MIX PLANT with 4 bin feeder conforming to Clause 501.3.4 of M.O.S.T. Specifications, 4th Revision, August 2001 edition must be owned / hired by the tenderer.

II) Other Modern Machinery required for the use on this work.

1. MECHANICAL SPRAYER

2. MECHANICAL PAVER FINISHER with electronic sensing device conforming to Clause 504.3.5 of M.O.S.T. Specification, 4th Revision, August 2001 edition.

3. VIBRATORY ROLLER and SMOOTH POWER ROLLER of 8 to 10 tonne.

Question -1:

Is the above machinery at Sr. No. (i) and (ii) is owned by you and available with you immediate deployment on this work ? If 'Yes' give following information.

<table>
<thead>
<tr>
<th>Type of Machine</th>
<th>Number of Units</th>
<th>Names of work on which deployed at present</th>
<th>Location</th>
<th>Output in tonnes of mix per day</th>
<th>Quantity in tonnes of Hot Mix balance for execution on work in hand</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| (Duly attested by Gazetted Officer).

Attested copy of proof of ownership of modern drum mix plant conforming to the Clause No. 501.3.4 of M.O.S.T. Specification of (4th Revision, August 2001 edition) and other required machinery and proof thereof must be enclosed in Envelope No.1

Question -2: If answer to Question 1 is 'No' then the Contractor shall have to procure the same on hire from another Agency /Contractor who owns it. Legal agreement on stamp paper executed for hire with the Agency / Contractor who owns this machinery and also the information mentioned in Question-1 above shall have to be attached along with this statement as well as their proof of ownership of machinery (i.e. Attested copies of invoices) as well as the valid certificate issued by the Assistant Chief engineer (Mech.) of Public Works Department to the effect that these machines are in "Efficient Working Condition" and in conformity with M.O.S. T. Specifications.

Scanned copy of Valid Certificate issued by the Assistant Chief Engineer (Mech.) of Public Works Department / Region, to the effect that specialised Machinery enlisted in Statement No. 2 ‘A’ attached herewith are in "Efficient" - "Working condition" and in conformity with M.O.S.T. Specifications, must be enclosed in Envelope No.1. in absence of this this Certificate, Envelope No.2 will not be open.
OR

(B) In case of Contractor intends to carry out BT work with Hot Mix Plant Batch Type, in lieu own drum mix plant (other machineries remaining the same).

(a) Tenderer shall furnish details of ownership in proforma 2 A.

(b) If hot mix plant (Batch Type) is not owned by contractor at the time of tendering then conditions for installing Hot Mix Plant with Electronic Control (minimum 80 TPH capacity Batch Mix Type)

(I) Contractor shall install Batch type Hot Mix Plant with Electronic Control of minimum 80 tones per hour capacity within 75 days from the date of issue of work order.

(II) If the contractor wants to procure / purchase/hire, Hot Mix Plant with Electronic Control of minimum 80 tones per hour capacity Batch Mix Type as mentioned above, he should submit necessary firm purchase order placed on manufacturer of repute/ Legal Agreement in the format attached herewith under the Heading "Articles of Agreement" executed on appropriate stamp paper for hiring Hot Mix Plant Batch Type in envelope number one.

(III) He shall give trial run on or before 75th day from the date of issue of work order.

(IV) In Envelope no.1 the bidder shall submit an additional Security, of Rs.10,00,000.00/- (Rupees Ten Lakh Only) in the form of FOR drawn in the name of Executive Engineer, PW east division, Pune payable at pune. If Contractor fails to give trial run of this batch mix plant on or before 75th day, from the date of issue of the said Work Order, his above said additional Security shall be encashed without any notice to the contractor without considering any force majure and shall be credited to Government revenue by the Engineer Incharge immediately on 76th day.

(V) Encashment of additional Security deposit as mentioned above shall not absolved the Contractor from the responsibility of installing the Batch Mix Plant which is required for carrying out Hot Mix Work. At the same time the above amount Rs.10,00,000/- so encashed shall not be refunded.

(VI) No extension of time limit shall be granted at any level for giving trial run after 75th day from the date of issue of work order.

C) Once the option of Drum mix Hot Mix plant or Batch Type Hot Mix Plant is exercised at the time of submitting the bid, it shall be mandatory to carry out the work by the same type of Hot Mix Plant.
ARTICLES OF AGREEMENT

(This document should be on Original Stamp Paper of Rs.100/- not on Xerox Copy)
(On Stamp Paper worth Rupees 100/-)

This Agreement of Hire of Machinery made and executed at ______________on this, the __________ Day of the month of ______________ 20_____

BETWEEN :-

1) Shri / M/s. __________________________________
   A Sole Trading concern Pvt. Ltd. Co. / Public Ltd. Co. / Partnership firm registered under the provisions of respective Acts in force and having his / their Office situated at ___________________ and managed by Shri __________________

   who is a,
   i) Sole Proprietor of the above mentioned concern.
   ii) Partner of the above mentioned partnership firm.
   iii) Holder of power of attorney of the above mentioned firm, Executive Director or Manager of the above mentioned company as approved by the present board of Director of the above mentioned Company,

   Hereinafter for the sake of brevity referred to as “The Owner” (Which expression shall, unless it be repugnant to the meaning of context thereof, mean and included the firm of all partners of the firm, the company at material time and their successors).

   Party of the First Part.

AND

2) Shri / M/s __________________________________ Contractors.
   A sole trading concern / Private Limited Company / Public Limited Company / Partnership firm registered under the provisions of respective acts in force and registered Government contractors registered in appropriate class with Government of Maharashtra Having his / their office situated at ____________ and managed by Shri.________________________

   Who is a,
   i) Sole Proprietor of the above mentioned concern.
   ii) Partner of the above mentioned partnership firm.
   iii) Holder of power of attorney of the above mentioned firm, Executive Director or Manager of the above mentioned company.

   Hereinafter for the sake of brevity referred to as “The Hirer” (Which expression shall, unless it be repugnant to the meaning of context thereof, mean and included the firm of all partners of the firm, the company at material time and their successors).

   Party of the Second Part.
Where in the party of the first part herein is an absolute owner of the Name of machine/s and to substantiate or establish it the documentary evidence in token of voucher enclosed. Where as party of the second part herein is a registered Government Contractors as stated in appropriate class with Government of Maharashtra.

AND where as the party of the second part is or is likely to submit the tender for Executive Engineer / Superintending Engineer,

AND WHERE AS the party of the second part intends to use the machinery of the said work as is being stipulated by the Department and desirous of taking the one /s on monthly hire charges basis.

AND WHERE AS the party of the first part, is desirous of giving the machinery on hire charges basis to the party of the second part.

AND WHERE AS to these presents are desirous of recording the terms and of the agreement, reduce the same to writing.

Now therefore this articles of agreement witness as under.

One / s to be hired.

It is hereby agreed between the parties to these presents that (Name / s of machine / s) of the second part has agreed to pay an amount of Rs. to the party of the first part on account of monthly wages of the machine / s as detailed below at the end of each month.

The party of Second part shall also pay an amount of Rs. as Interest deposit to the party of the first part at the time of intimation in writing. This deposit shall either be refunded by the First Part to the party of the second part or shall be adjusted in the final of the hire charges of the machine / s.

<table>
<thead>
<tr>
<th>Name of machine</th>
<th>Monthly rate of hire charges</th>
</tr>
</thead>
</table>

Signature of contractor No. of Corrections Executive Engineer
2) Date of Hire :-

It is hereby expressly declared by the parties to the presents that the machine / s shall be hired on and from the date of commencement of the work being awarded or that would be awarded by the Executive Engineer, ________________ to the party of the second part herein.

3) It is hereby agreed by and between the parties to these presents that instant agreement shall remain in force from the date of hire as specified in Clause two above to the date of either completion of the work in question or six months from the date of hire whichever period expires later.

4) Possession :-

The party of the first part has agreed to deliver the possession of the machine / s that would be hired as described in Clause one above in good working condition along with its operational crew and all the necessary accessories of the machine / s being hired to the party of the second part within eight days from the date of intimation in writing given by the party of the second part to the party of the first part.

5) Mode of payment :-

Monthly hire charges of the machine / s as specified in clause one above shall be paid by the party of the second part as on the last day of each month by issuing a crossed Account Payee Cheque or Crossed Account Payee Demand Draft.

6) Repairs and Maintenance :-

It is hereby agreed by the party of the first part that it shall bear all day to day expenses of the machine / s on account of fuel, oil and lubricants, operations, maintenance and repair charges during the currency of the period for which machine/s let out on hire charges to the party of the second part. It is further agreed that if the party of the second part spends on the operations, repairs and maintenance for the machine/s hired by it, the party of the second part has every right to deduct the said amount from the monthly hire charges payable to the party of the first part.

7) The party of the first part shall always keep the machine / s in good working conditions that are given on hire charges basis to the party of the second part. It is further agreed that the day spend on repairs and maintenance shall be excluded for the purpose of calculating the monthly hire charges.

8) The party of the second part shall have right to deduct the Income tax at source at the prescribed rate of the provisions of Income tax act as ordered by the Government of India are applicable.
In Testimony whereof the parties to these present have set and subscribed their respective signatures on the day, month and year herein above written.

Party of the First part

Signed Executed and delivered for and on behalf of

Shri / M/s. _______________________

_________________________________

_________________________________

In Presence of :-

1) ______________________

2) ______________________

Party of the Second part

Signed Executed and delivered for and on behalf of

Shri / M/s. _______________________

_________________________________

_________________________________

AFFIRMED AND EXECUTED BEFORE ME

NOTARY
MODEL FORM OF BANK GUARANTEE BOND

In consideration of the Governor of Maharashtra (here in after referred to as 'The Government") having agreed to exempt ________________________________ (here in after referred to as "the Contractor") from depositing with the Government in case the sum of Rs.____________________ (Rupees __________________________ only) being the amount of security deposit payable by the Contractor or to the Government under the terms and conditions of the agreement dated the ______ day of______________ and made between the Government of the one part and the Contractor of the other part (here in after referred to as "the said Agreement") for as security for due observance and performance by the Contractor of the terms and conditions of the said agreement, on the contract furnishing to the Government a guarantee in the prescribed form of a scheduled bank in India being in face those presents in the like sum of Rs.____________________ Rupees __________________________ only.

We_______________________________________________ BANK/LIMITED registered in India under _____________________________ Act and having one of our local Head office at __________________________ do here by :

(1) Guarantee to the Government.
   a) Due performance and observance by the Contractor of the terms, covenants and conditions on the part of the Contractor contained in the said Agreement and
   b) Due and punctual payment by the Contractor to the Government of all sums of money, losses, damages, cost charges, penalties and expenses payable to the Government by the Contractor under or in respect to said agreement.

(2) Undertake to pay to the Government on demand and without demur and not withstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding filed in any Court of tribunal relating their to the said sum of Rs.____________________ (Rs. __________________________ only.) or such lesser sum may be demanded by the Government from us our liability here under being absolute and unequivocal and agree that.

(3) (a) The guarantee herein contained shall remain in full and effect during the subsistence of the said agreement and that the same will continue to enforceable till all the dues of the Government under or by virtue of the said agreement have been duly paid and its claims satisfied or discharged and till the Government certifies that the terms and conditions of the said Agreement have been fully properly carried out by the Contractor.

Signature of contractor No. of Corrections Executive Engineer
(b) We shall not be discharged or released from the liability under this guarantee by reasons of

(i) Any change in the constitution of the bank of the Contractor, or

(ii) Any arrangement entered into between the Government and the Contractor with or without our consent;

(iii) Any forbearance or indulgence shown to the Contractor;

(iv) Any variation in the terms covenants or conditions contained in the said agreement;

(v) Any time given to the Contractor, or

(vi) Any other conditions or circumstances under which, in law, a surety would be discharged.

(c) Our liability here in under shall be joint and several with that of the Contractor as if we were principal debtors in respect of the said sum of Rs. ____________________

(Rs. _________________________________________________________________
________________________________________________________ only.) and

(d) We shall not revoke this guarantee during its currency except with the previous consent in writing of the Government.

IN WITNESS WHEREOF THE common seal of ________________________

has been herein to affixed this ____________________ day of __________ 20

The common seal of ________________________________ ________________

____________________________________________________ was pursuant to the resolution of the presence of the Board of Directors of the Company dated the ____________________ day of ____________________ therein affixed

who, in token thereof, have here to set their respective hands in the presence of.

(1) _______________________________________________ 

(2) _______________________________________________ 

Signature of contractor    No. of Corrections         Executive Engineer
Name of Work :-  S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur-Adkur to S.H.189, M.D.R.66 Km. 4/ 300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur. (Part - Kruni to Gavase)

DECLARATION OF THE CONTRACTOR

I / We hereby declare that I/We have made myself / ourselves thoroughly conversant with the sub-soil conditions, the local conditions regarding all materials (such as stones, murum, sand etc.) and labour of which I/We have based my/our rates for this work. The specifications, conditions bore results and lead of materials on this work have been carefully studied and understood by me/us before submitting this tender. I/We undertake to use only the best materials approved by the Executive Engineer, Public Works (South) Division, Kolhapur or his duly authorised assistant, before starting the work and to abide by his decision.

I/ We hereby further declare that my/our tender is unconditional in every manner of whatsoever in nature.

I / We hereby undertake to pay the labourers engaged on the work as per Minimum Wages Act, 1948 applicable to the zone concerned.

TO BE FILLED BY THE CONTRACTOR

I/We have quoted my/our offer in percentage rate in words as well as in figures, I/We further undertake to enter into contract in regular “B-1” form in Public Works Department.

Name and Signature of Contractor(s) / Power of attorney holder with complete address.

Signature of Contractor(s)
Name of Work :-  S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur-Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400,
Tal. - Chandagad, Dist. - Kolhapur. (Part - Kruni to Gavase)

GENERAL DESCRIPTION

The proposed work is on road from S.T. & B.T. from S.H. 180 to Kanur Kurni Gacase Ibrahimpur Adkur to S.H. 189 M.D.R. 66 Km 4/300 to 7/400 Tal. Chandagd Dist. Kolhapur (Part Kurni to Gavase). The proposed work about 129.00 Km. away from Kolhapur.

Scope for Strengthening and Black topping of road.

I) **Length of Road** :-
   Proposed road length - 2.6 Km. length.

II) **Width of existing Carriageway** :-
   3.75 Mtrs. (Single Carriageway)

III) **Provision for Improvement** :-
    a) 20 mm thick Open Graded HMHL premix bituminous Carpet using 60/70 grade of Bitumen VG - 30 for mixing and tack coat 25 Kg. /100 Sqm. of Bitumen Emulsion with type A liquid seal coat for 2.6 meter length (Area 9750.00 Sqm.)
    b) Hard murum side shoulders for 2600.00 meter length.
FORM B-1

PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS

DEPARTMENT : Public Works Department, Mumbai
REGION : P.W. Region Pune.
CIRCLE : P.W. Circle Kolhapur.
DIVISION : Public Works (South) Division, Kolhapur.
NAME OF WORK : S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur.
(Part - Kruni to Gavase)

General Rules and Directions for the Guidance of contractors.

1. All works proposed to be executed by contract shall be notified in a form of invitation to tender pasted on a board hung up in the office of the Executive Engineer and signed by the Executive Engineer.

This form will state the work to be carried out as well as the date for submitting and opening tenders, and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender and the amount of security deposit to be deposited by the successful tenders and the percentage, if any, to be deducted from bills. It will also state whether a refund of a quarry fees, royalties, dues and ground rents will be granted. Copies of the specification, designs and drawings, estimated rates, scheduled rates and any other documents required in connection with the work shall be signed by the Executive Engineer for the purpose of identification and shall also be open for inspection by contractors at the office of the Executive Engineer, Public Works (South) Division, Kolhapur during office hours.

Where the works are proposed to be executed according to the specifications recommended by a contractor and approved by a competent authority on behalf of the Governor of Maharashtra such specifications with designs and drawings shall form part of the accepted tender.

2. In the event of the tender being submitted by a firm, it must be signed by each partner thereof, and if the event of the absence of any partner, it shall be signed on his behalf by a person holding a power of attorney authorising him to do so.
2(A)i) The contractor shall pay alongwith the tender the sum of **Rs.35,300/- (Rupees Thirty five thousand three hundred only)** as and by way of Earnest Money. The contractor may pay the said amount by forwarding letter alongwith the tender, call deposit receipt or short term deposit receipt for a period of one year of any Nationalised bank or Scheduled bank for the like amount in favour of the **Executive Engineer, Public Works (South) Division, Kolhapur.** The said amount of earnest money shall not carry any interest what so ever.

ii) In the event of his tender being accepted, subject to the provisions of sub-clause (iii) below, the said amount of earnest money shall be appropriated towards the amount of security deposit payable by him under conditions of General Conditions of Contract.

iii) If, after submitting the tender contractor withdraws his offer, or modifies the same or if after the acceptance of his tender the contractor fails or neglects to furnish the balance of security deposit without prejudice to any other rights and powers of the Government, hereunder, or in law, Government shall be entitled to forfeit the full amount of earnest money deposited by him.

iv) In the event of his tender not being accepted, the amount of earnest money deposited by the contractor shall, unless it is prior thereto forfeited under the provisions of sub-clause (iii) above, be refunded to him on his passing receipt therefor.

3. Receipts for payments made on account of any work, when executed by a firm, should also be signed by all the partners except where the contractors are described in their tender as a firm, in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.

4. Any person who submits a tender shall fill up the usual printed form stating at what percentage above or below the rates specified in Schedule ‘B’ (memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate or such percentage on all the estimated rates/Schedule rates shall be named. Tenders which propose any alteration in the works specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions, of any sort will be liable to rejection. No printed form of tender shall include a tender for more than one works but if contractor who which to tender two or more works, they shall submit separate tender for each. Tenders shall have the name and number of the work to which they refer, written outside the envelope.
5. The Executive Engineer or his duly authorised Assistant shall open tenders in the presence of contractors who have submitted tenders or their representatives who may be present at the time, and he will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, the contractor shall for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule 1. In the event of tender being rejected, the competent officer shall authorised the Treasury Officer concerned to refund the amount of earnest money deposited to the contractor making the tender, on his giving a receipt for the return of the money.

6. The officer competent to dispose off the tenders shall have the right of rejecting all or any of the tenders.

7. No receipt for any payment alleged to have been made by a contractor in regard to any matter relating to this tender or the contract shall be valid and binding on Government unless it is signed by the Executive Engineer.

8. The memorandum of work to be tendered for and the schedule of materials to be supplied by the Department and their rates shall be filled in and completed by the office of the Executive Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and completed he shall request the said office to have this done before he completes and delivers his tender.

9. All works shall be measured net by standard measure and according to the rules and customs of the Department and their rates shall be without reference to any local custom.

10. Under no circumstances shall any contractor be entitled to claim enhanced rates for items in this contract.

11. Every registered contractor should produce alongwith his tender certificate of registration as approved contractor in the appropriate class and renewal of such registration with date of expiry.

12. All corrections and additions or pasted slips should be initialed.

13. The measurements of work will be taken according to the usual methods in use in the Department and no proposals to adopt alternative methods will be accepted. The Executive Engineer's decision as to what is the usual method in use in the Department will be final.
14. The tendering contractor shall furnish a declaration alongwith the tender showing all works for which he has already entered into contract, and the value of work that remains to be executed in each case on the date of submitting the tender.

15. Every tenderer shall furnish alongwith the tender, information regarding the income-tax circle or ward of the district in which he is assessed to income tax the reference to the number of assessment and the assessment year, and a valid Income Tax clearance certificate, Permanent Account Number PAN No........................................

16. In view of the difficult position regarding the availability of foreign exchange no foreign exchange would be released by the Department for the purchase of plant and machinery required for the execution of the work contracted for. (GCB/PWD/CFM/1058-62517 dt.26-9-59)

17. The contractor will have to construct shed for storing controlled and valuable materials issued to him under Schedule 'A' of the agreement, at the work site, having double locking arrangement. The materials will be taken for use in the presence of the Departmental person. No materials will be allowed to be removed from the site of works.

18. The contractors shall also give a list of machinery in their possession and which they propose to use on the work in the form of statement No. II.

19. Every registered Contractor should furnish along with the tender a statement showing previous experience and technical staff employed by him, in form of Statement No. V.

20. Successful tenderer will have to produce to the satisfaction of the accepting a valid and current license issued in his favour under the provision of Contract Labour (Regulation and Abolition Act, 1973) before starting work, failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited to Government.

21. The contractor shall comply with the provision of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer, may in his discretion cancel the contract. The contractor shall also be liable, for any pecuniary liability arising on account of any violation by him of the provisions of the Act.
TENDER FOR WORKS

1. I/We hereby tender for the execution, for the Governor of Maharashtra (hereinbefore and hereinafter referred to as "Government") of the work specified in the under written memorandum within the time specified in such memorandum at* _______________ (in words__________________ _______________ percent below / above the estimated rates entered in Schedule ‘B’ (memorandum showing items of work to be carried out) and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule 1 hereof and in clause 12 of the annexed conditions of the contract and agree that when materials and the rate to be paid for them shall be as provided in schedule ‘A’ hereto.

MEMORANDUM

General Description – S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur.

(a) Estimated cost -- Rs. 35,23,632/-
(b) Earnest Money -- Rs. 35,300/-
(d) Security Deposit
   i) F.D.R./ N.S.C. / Bank -- Rs. 70,500/-
   ii) To be deducted from current bills. -- Rs. 70,500/-

Total Rs. 1,41,000/-

(e) Percentage, if any to be deducted from bills so as to make up the total amount required as security deposit by the time, half the work, as measured by the cost, is done. 4 % (Four) Percent

(f) Time allowed for the work from the date of written order to commence 9 (Nine) Calendar months Including Mansoon

Signature of contractor No. of Corrections Executive Engineer
2. I/We agree that the offer shall remain open for acceptance for minimum period of 120 days from the date fixed for opening the same and thereafter until it is withdrawn by me/us by notice in writing duly addressed to the authority opening the tenders and sent by Registered Post Acknowledge Due or otherwise delivered at the office of such authority, Treasury-Bank challan No. and date or Deposit at call receipt No. and date or term deposit receipt issued by Nationalised or Scheduled Bank for a period of one year receipt No. ______________ date ______________ in respect to the sum of Rs.35,300/- (in words Rupees Thirty five thousand three hundred only) representing the Earnest Money is herewith forwarded.

The amount of earnest money shall not bear interest and shall be liable to be forfeited to the Government, should I/we fail to (i) abide by the stipulation to keep the offer open for the period mentioned above or (ii) sign and complete the contract documents as required by the Engineer and furnish the security deposit as specified in item (d) of the memorandum contained in paragraph 1 above within the time limit laid down in clause (1) of the annexed General Conditions of contract. The amount earnest money may be adjusted towards the security deposit or refunded to me/us if so desired by me/us in writing, unless the same or any part thereof has been forfeited as aforesaid.

3. I/we have secured exemption from payment of earnest money after executing the necessary bond in favour of the Govt. a true coy of which is enclosed herewith, should any occasion for forfeiture of earnest money for this work arise due to failure on my/our part to (i) abide by the stipulations to keep the offer open for the period mentioned above or (ii) sign and complete the contract documents and furnish the security deposit as specified in item (d) of the Memorandum contained in paragraph 1 above within the time limit laid down in clause (1) of the annexed General conditions of contract the amount payable by me/us may, at the option of the Engineer, be recovered out of the amount deposited in lumpsum for securing exemption in so far as the same may extend in terms of the said bond and in the event of the deficiency out of any other moneys which are due or payable to me/us by Government under any other contract or transaction of any nature whatsoever or otherwise.

4. Should this tender be accepted I/we hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto so far as applicable, and in default thereof to forfeit and pay to Government the sums of money mentioned in the said conditions.
*Amount to be specified in words and figures.

*Strike out (a) if no cash security deposit is to be taken.

Receipt No. ________________ dated ________________ from the Government Treasury or Sub-Treasury at ________________ in respect of the sum of Rs.* ________________ (in words Rupees ________________) is herewith forwarded representing the earnest money (a) the full value of which is to be absolutely forfeited to Government should I/We not deposit the full amount of security deposit specified in the above memorandum, in accordance with clause 1(A) of the said conditions of the contract, otherwise the said sum of Rs. ________________ (in words Rupees ________________) shall be refunded.

# Signature of Contractor before submission of tender.

Contractor ________________________________ #

Address __________________________________

Dated the ________ Day of _______________ 20___

(witness) __________________________________

Address __________________________________

(Occupation) ________________________________

The above tender is hereby accepted by me for and on behalf of the Governor of Maharashtra.

* Signature of the officer by whom accepted.

Dated ___ day of ________ 20___

Executive Engineer,
Public Works (South) Division, Kolhapur.
CONDITIONS OF CONTRACT

Clause 1: The person/persons whose tender may be accepted (hereinafter called the contractor, which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators and assigns shall (A) within 10 days (which may be executed by the Superintending Engineer concerned up to 15 days if the Superintending Engineer thinks fit to do so) of the receipt by him of the notification of the acceptance of his tender deposit with the Executive Engineer in cash or Govt. securities endorsed to the Executive Engineer (if deposited for more than 12 months) of sum sufficient which will made up the full security deposit specified in the tender or (B) (Permit Government at the time of making any payment to him for work done under the contract to deduct such as will amount to *4% percent of all moneys so payable such deductions to be held by Government by way of security deposit.) Provided always that in the event of the contractor depositing a lump sum by way of security deposit as contemplated at (A) above, then and in such case, if the sum so deposited shall not amount to 4% percent of the total estimated cost of the work, it shall be lawful for Government at the time of making any payment to the contractor for work done under the contract to make up the full amount of 4% percent by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the contractor to Government under the terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may to due or may become due by Government to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall, within ten days thereafter, make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof. The security deposit referred to, when paid in cash may, at the cost of the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.

The security deposit will not be accepted in forms of Insurance Company bonds as per Government orders contained in No. CCM/PWD/CATM25D Date: 27/2/1956. If the amount of the security deposit to be paid in a lump sum within the period specified at (A) above is not paid the tender/contract already accepted shall be considered as cancelled and legal steps taken against the contractor for recovery of the amount of the amounts. The amount of the security deposit lodged by the contractor shall be refunded along with the payment of the final bill, if the date up to which the contractor has agreed to maintain the work in good order is over. If such date is not
over, only 50 % (Fifty percent) amount of security deposit shall be refunded along with the payment of final bill. The amount of security deposit retained by the Government shall be released after expiry of period up to which the contractor has agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete rectification work within the period upto which the contractor has agreed to maintain the work in good order, then subject to provisions of clauses 17 and 20 hereof the amount of security deposit retained by Government shall be adjusted towards the excess cost incurred by the department on rectification work.

Note: {* This will be the same percentage as that in the tender at (e)}

Compensation for delay

Clause 2 :- The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall through the stipulated period of the contract be proceeded with, with all due diligence (time being deemed to be the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent or such smaller amount as the superintending Engineer (whose decision in writing shall be final may decide, of the amount of the estimated cost of the whole work as shown by the tenderer for every day that the work remains uncommented, or unfinished, after the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month to complete.

<table>
<thead>
<tr>
<th>Fraction of Work</th>
<th>Time for Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>in 1/4 of the time</td>
</tr>
<tr>
<td>1/2</td>
<td>in 1/2 of the time</td>
</tr>
<tr>
<td>3/4</td>
<td>in 3/4 of the time</td>
</tr>
<tr>
<td>Full</td>
<td>in 9 (Nine) months</td>
</tr>
</tbody>
</table>

(Note : The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in the blank space kept for the purpose by officer competent to accept the contracts after taking into consideration the circumstances of each case and abide by the program of detailed process laid down by the Executive Engineer. In the event of the contractor failing to comply with this conditions he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that the due quantity of work remains incomplete provided always that the total amount of compensation to be paid under provisions of this clause shall not exceed 10 per cent of
the estimated cost of the work as shown in the tender. Superintending Engineer, should be the final authority in this respect, irrespective of the fact that the tender is accepted by Chief Engineer, Addl. Chief Engineer/ Superintending/ Executive Engineer or Asst. Engineer/ Deputy Engineer.

**Clause 3 :-** In any case in which under any clause of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of this security deposit whether paid in one sum or deducted by installments or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause the Engineer, on behalf of the Governor of Maharashtra, shall have power to adopt any of the following courses, as he may deem best suited to the interest of Government :-

(a) To rescind the contract (for which rescission notice in writing to the contractor under the head of Executive Engineer shall be conclusive evidence) and in that case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government.

(b) To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant, and charges on additional supervisory staff including the cost of work-charged establishment employed for getting the un-executed part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of Executive Engineer as to the cost and other allied expenses so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor.

(c) To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.
In case the contract shall be rescinded under clause (a) above the contractor shall not be entitled to recover or be paid any sum for any work therefore actually performed by him under this contract unless and until the Executive Engineer shall have certified in writing the performance of the such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors the amount of excess shall be deducted from any money due to the contractor, by Government under the contractor otherwise howsoever or from his security deposit or the sale proceeds thereof provided, however, that contractor shall have no claim against Government even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clause (a), (b) or (c) is adopted by Executive Engineer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of or with a view to the execution of the work or the performance of the contract.

**Clause 4 :-** If the progress of any particular portion of the work is unsatisfactory the Executive Engineer shall notwithstanding that the general progress of the work is in accordance with the conditions mentioned in clause 2, be entitled to take action under clause 3 (b) after giving the contractor 10 days notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

**Clause 5 :-** In any case in which any of the powers conferred upon the Executive Engineer by clause 3 and 4 hereof shall have become exercisable and the same shall not have been exercised the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor for which under any clause hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Executive Engineer taking action under sub-clause (a) or (c) of clause 3, he may if he so desires, take possession of all any tools and plant, materials and stores in or upon the work of the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates, or in
the case of contract rates not being applicable at current market rates to be certified by the Executive Engineer whose certificate thereof shall be final. In the alternative the Executive Engineer may after giving notice in writing to the contractor or his clerk of the work, foreman or other authorised agent require him to remove such tools and plant, materials, or stores from the premises within a time to specified in such notice, and in the event of the contractor failing to comply with any such requisition, the Executive Engineer may remove them at the contractor's expense or sale them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Extension of time

Clause 6 :- If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Executive Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred, whichever is earlier and the Executive Engineer or in the opinion of superintending Engineer, or Chief Engineer as the case may be if in his opinion, there were reasonable grounds for the granting an extension, grant such extension as he thinks necessary or proper. The decision of the Superintending Engineer in his matter shall be final.

Final certificate.

Clause 7 :- On the completion of the work the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineer-in-charge) of such completion, but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus materials and rubbish, and shall have cleaned off, the dirt from all wood work, doors, windows wall, floor or other parts of any building in or upon which the work has been executed or of which he may have had possession for the purpose of executing the work, nor until the work shall have been measured by the Engineer-in-charge or where the measurement have been taken by his subordinates until they have received approval of Engineer-in-charge, the said measurements being binding and conclusive against contractor. If the contractor shall fail to comply with the requirements of his clause as to the removal of scaffolding surplus materials and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer-in-charge may at the expense of the contractor, remove such scaffolding, surplus materials and rubbish and dispose off the same as he thinks fit.
and clean off such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

**Clause 8 :-** No payment shall be made for any work estimated to cost less than rupees one thousand till after the whole of work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand the contractor shall on submitting a monthly-bill therefore be entitled to receive payment proportionate to the part of the work than approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed or re-erected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the occurring of any claim nor shall it conclude, determine or affect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

**Clause 9 :-** The rates for several items of work estimated to cost more than Rs.1000 agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of work are not accepted as so completed by the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in preparation of final or on account bills.

**Clause 10 :-** A bill shall be submitted by the contractor in each month or before the date fixed by the Engineer-in-charge for all work executed in the previous month and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the engineer-in-charge may depute a subordinate to measure up the said work in the presence of contractor or his duly
Clause 11 :- The contractor shall submit all bills on the on the printed forms to be had on application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

Stores supplied by Government

Clause 12 :- If the specification or estimate of the work provides for the use of any special description of material to be supplied from the store of the Dept. store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purpose of the contract only, and value of the full quantity of the materials and stores supplied shall be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract, or otherwise, or from the security deposit or the proceeds of sale thereof if the security deposit is held in Government securities, the same or a sufficient portion thereof shall in that case be sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Government and shall on no account be removed from the site of the work, and shall at all times be open for inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or termination of the contract shall be returned to the Departmental store of the Engineer-in-charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials.

Works to be executed in accordance with specifications, drawings, orders, etc.

Clause 13 :- The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and every other respect in strict accordance with specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the
purpose of inspection at such office, or on the site of the work during office hours. The contractor will be entitled to receive three sets of contract drawings and working drawings as well as one certified copy of the accepted tender alongwith the work order free of cost. Further copies of the contract drawings and working drawings if required by him, shall be supplied at the rate of Rs. 1,000/- per set of contract Drawing and Rs. 1,000/- per working drawing except where otherwise specified.

**Clause 14 :-** The Engineer-in-charge shall have power to make any alteration in or addition to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. And if the additional and altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the Schedule of Rates of the Division or at the rates mutually agreed upon between the Engineer-in-charge and the contractor whichever lower. If the additional or altered work for which no rate is entered in the schedule of Rates of the Division is ordered to be carried out before the rates are agreed upon then the contractor shall within seven days of the date of receipt by him of the order to carry out the work, inform the Engineer-in-charge of rate which it is his intention to charge for such class of work. And if the Engineer-in-charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry out in such manner as he may consider advisable provided always that if the contractor shall commence work or incurred any expenditure in regard thereto before the rates shall have been determined as lastly hereinbefore mentioned then in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of a dispute the decision of superintending Engineer of the Circle will be final.
Where, however, the work is to be executed according to the designs, drawing and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings, and specifications appended to the tender.

The time limit for the completion of the work shall be extended in the proportion that increase in its cost occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Engineer-in-charge as to such proportion shall conclusive.

Clause 15 :- (1) If at any time after the execution of the contract documents the Engineer shall for any reason whatsoever (other than default on the part of the contractor for which Government is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out, at all he shall give to contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the decision of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

(2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 days' prior notice in writing to the Engineer, within 30 days of the expiry of the said period 90 days, of such intention and requiring the Engineer to record the final measurement of the work already done and to pay final bill. Upon giving such notice the contractor shall be deemed to have been discharged from his obligations to complete the remaining unexecuted work under his contract. On receipt of such notice the Engineer shall proceed to complete the measurements and make such payment as may be finally due to the contractor within a period 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.
(3) Where the Engineer required the contractor to suspend the work for a period in excess 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery remained idle on the site or on the account of his having and to pay the salary or wages of labour engaged by him during the said period of suspension provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate or such suspension or in respect or any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.

(4) In the event of –

(i) Any total stoppage of work on notice from Engineer under sub clause (1) in that behalf.

(ii) Withdrawal by the contractor from the contractual obligations complete remaining unexecuted work under sub-clause (2) on account of continued suspension of work for a period exceeding 90 days.

OR

(iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission or substitution in specifications, drawings, designs or instructions under clause (14) where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25 percent at the rates for the item specified in the tender is more than Rs.5000/-

It shall be open the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of work or (iii) notice under clause 14(1) resulting in such curtailment to produce to the engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage, suspension or curtailment and require the Government to take over on payment such material at the rates determined by the Engineer, provided however, such rates shall in no case exceed the rates at which the same was acquired by the contractor. The Government thereafter take over the material so offered, provided the quantities offered, are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Engineer.
No claim to compensation on account of loss due to delay in supply of material by Government

Clause 15 A :: The contractor shall not be entitled to claim any compensation from Government for the loss suffered by him on account of delay by Government in the supply of materials entered in Schedule A where such delay is caused by
(i) Difficulties relating to the supply of railway wagons.
(ii) Force majeure.
(iii) Act of God.
(iv) Act of enemies of the State or any other reasonable cause beyond the control of Government.

In the case of such delay in the supply of materials, Government shall grant such extension of the time for the completion of the work as shall appear to the Executive Engineer to be reasonable in accordance with the circumstances of the case. The decision of the Executive Engineer as to the extension of time shall be accepted as final by the contractor.

Clause 16 :: Under no circumstance whatever shall the contractor be entitled to any compensation from Government on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of the case of such claim occurring.

Clause 17 :: If any time before the security deposit or any part thereof is refunded the contractor it shall appear to the Engineer-in-charge or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality, or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or are otherwise not in accordance with the contract, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or if so required, shall remove the material or articles so specified and provided other proper and suitable materials or articles at his own charge and cost and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding 10 days, during which the failure so continues and in the case of any such failure the Engineer-in-charge may rectify or remove and re-execute the work or remove, and replace materials or articles complained of as the case may be at the risk and expense in all respects of the contractor should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix therefore.
Work to be open to inspection.

Contractor or responsible agent to be present

Clause 18 :- All works under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his subordinates, and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge and his subordinate to visit the work shall have been given to contractor, either himself be present to receive orders and instructions or have responsible agent duly accredited in writing present for that purpose. Orders given to the contractor's duly authorised agent shall be considered to have the same force and effect as if they had given to the contractor himself.

Notice to be given before work is covered up.

Clause 19 :- The contractor shall give not less than ten day's notice in writing to the Engineer-in-charge or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is, so covered up or place beyond the reach of measurements and shall not cover up or place beyond the reach of measurements any work without the consent in writing of the Engineer-in-charge or his subordinate in charge of the work, and if any work shall be covered up or place beyond the reach of measurement, without such notice having been given or consent obtained the same shall be uncovered at the contractor's expenses and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

Contractor liable for damage done and for imperfections.

Clause 20 :- If during the period of Twenty Four (24) months from the date of completion as certified by the Engineer-in-charge pursuant to clause-7 of the contract or Thirty Six (36) months after commissioning the work, whichever is earlier in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the Executive Engineer duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Executive Engineer. In the event of the contractor failing or neglecting to commence execution of the said rectification of work within the period prescribed therefore in the said notice and/or to-complete the same as aforesaid as required by the said notice, the Executive Engineer get the same executed and carried out departmentally or by any other agency at the risk on account an at the cost of the contractor. The contractor shall forthwith on demand pay to
the Govt. the amount of such costs, charges and expenses sustained or incurred by the Government of which the certificate of the Executive Engineer shall be final and binding on the contractor. Such costs, charges and expenses shall be deemed to be arrears of land revenue and on the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the Government the same may be recovered from the contractor as arrears of land revenue. The Government shall also be entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by the Government to the contractor either in respect of the said work or any other work whatsoever or from the amount of security deposit retained by Government.

Clause 21: The contractor shall supply at his own cost all material (except such special materials if any as may in accordance with the contract be supplied from the Public Works (South) Division, Kolhapur's stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original, altered or substituted form, and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with the carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials, failing which the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear the expenses of defense of every suit, action or other legal proceeding that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with consent of the contractor be paid for compromising any claim by any such person.
List of machinery in contractor's possession and which they propose to use on the works should be submitted along with the tender.

**Clause 21 A :-** The contractor shall provide suitable scaffolds and working platforms, gangways, and stairways and shall comply with the following regulations in connection herewith:

(a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
(b) A scaffold shall not be constructed, taken down or substantially altered except
   (i) Under the supervision of a competent and responsible person and
   (ii) As far as possible by competent workers possessing adequate experience in this kind of work.
(c) All scaffolds and appliances connected therewith and ladders shall
   (i) be of sound material,
   (ii) be of adequate strength having regard to the loads and strains to which they will be subjected and
   (iii) be maintained in proper condition.
(d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
(e) Scaffolds shall not be over-loaded and so far as practicable the load shall be evenly distributed.
(f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffold.
(g) Scaffolds shall be periodically inspected by the competent person.
(h) Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulations here-in-specified.
(i) Working platform gangways, stairways shall
   (i) Be so constructed that no part thereof can sag unduly or unequally,
   (ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping, and
   (iii) Be kept free from any unnecessary obstruction.
(j) In the case of working platform, gangways, working places and stairways at the height exceeding 3 meters, (to be specified)
   (i) every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety,
   (ii) every working platform and gangway shall have adequate width and
   (iii) every working platform, gangway, working place and stairway shall be suitably fenced.

(k) Every opening in the floor of a building or in a working platform shall except for the time to the extent required to allow the excess of persons or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.

(l) When persons are employed on roof where there is a danger of falling from a height exceeding 3 meters suitable precautions shall be taken to prevent the fall of persons or materials, (to be prescribed)

(m) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffold or other working places.

(n) Safe means of access shall be provided to all working platforms and other working places.

(o) The contractor(s) will have to make payments to the labourers as per minimum Wages Act.

Clause 21 B :- The contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him:-
(a) Hoisting machine and tackle, including their attachments, anchorages and support shall-
   (i) be of good mechanical construction, sound material and adequate strength and free from patent defect, and
   (ii) be kept in good repair and in good working order.
(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
(c) Hoisting machine and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Government.
(d) Every chain, ring, hook shackle swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
(e) Every crane driver or hoisting appliance operator shall be properly qualified.
(f) No person who is below age of 21 years shall be in control of any hoisting machine, including any scaffold which, or give signals to the operator.

(g) In the case of every hoisting machine and every chain, ring, hook, shackle, swivel pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means,

(h) Every hoisting machine and all gear referred to in preceding regulation shall be plainly marked with the safe working load,

(i) In the case of hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated,

(j) No part of any hoisting machine or of any gear referred to in regulation (g) above shall be loaded beyond the safe working load except for the purpose of testing.

(k) Motors, gearing transmissions, electric wiring and other dangerous part or hoisting appliances shall be provided with efficient safeguards

(l) Hoisting appliances shall be provided with such means as will reduce to minimum and the risk of the accidental descent of the load,

(m) Adequate precaution shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

**Clause 22 :-** The contractor shall not set fire to any standing jungle, trees brushwood or grass without a written permit form the Executive Engineer. When such permit is given, and also in all cases when destroying cut or dug up trees brushwood, grass etc. By fire; the contractor shall take the necessary measure to prevent such fire spreading to or otherwise damaging surrounding property. The contractor shall make his own arrangements for drinking water for the labour employed by him.

**Clause 23 :-** Compensation for all damages done intentionally or unintentionally by contractor's labour whether in or beyond the limits of Government property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as be may appoint and the estimate of the Engineer-in-charge subject to the decision of the Superintendent Engineer on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in clause 1 or deducted by the Engineer-in-charge from any sums that may be due or become due from Government to contractor under his contract or otherwise.

The contractor shall bear the expenses of defending any action or other legal proceeding that may be brought by any persons for injury sustained by him owing to neglect of precautions to prevent the spread
Employment of female labour. 

**Clause 24 :-** The employment of female labours on works in neighborhood of soldier's barracks should be avoided as far as possible. The contractor shall employ the labour with the nearest employment exchange.

Work on Sunday. 

**Clause 25 :-** No work shall be done on a Sunday without the sanction in writing of the Engineer-in-charge.

Work not to sublet. 

**Clause 26 :-** The contract shall not be assigned or sublet without the written approval of the Engineer-in-charge. And if the contractor shall assign or sublet his contract or attempt so to do, or become insolvent or commence any proceeding to get himself adjudicated and insolvent or make any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the contractor or any of his servants or agents to any public officer or person in the employ of Government in any way relating to his office or employment or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer-in-charge may thereupon by notice in writing rescind the contract and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensure as if the contract had been rescinded under Clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work therefor actually performed under the contract.

Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss. 

**Clause 27 :-** All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained.

Changes in the constitution of firm to be notified. 

**Clause 28 :-** In the case offender by partners, any change in the constitution of a firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.

Direction and control of the Superintending Engineer. 

**Clause 29 :-** All works to be executed under contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the Circle, for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.
Direction and control of the Superintending Engineer.

Clause 30 :-
(a) Except where otherwise specified in the contract and subject to the powers delegated to him by Government under the code, rules then in force, the decision of the Superintending Engineer of the circle for the time being shall be final, conclusive, and binding on all parties to the contract upon all question relating to the meaning of the specifications, designs, drawings, and instructions hereinbefore mentioned and as to the quality or workmanship, or materials used on the work, or as to any other question, claim right, matter or thing whatsoever, if any way arising out of, or relating to the contract, designs, drawings specifications, estimates, instructions, orders, or these conditions or otherwise concerning the works or execution, or failure to execute the same, whether arising during the progress of the work, or after the completion or abandonment thereof.

(b) The contractor may within thirty days of receipt by him of any order passed by the Superintending Engineer of the Circle as aforesaid appeal against it to the Chief Engineer concerned with the contract. Work Project provided that:
   (i) The accepted value of the contract exceeds Rs.10 Lakhs (Rs. Ten Lakhs),
   (ii) Amount of claim is not less than Rs. 1.00 Lakh (Rupees one Lakh).

(c) If the contractor is not satisfied with the order passed by the Chief Engineer as aforesaid the contractor may, within thirty days of receipt by him of any such order, appeal against it to the concerned secretary, Public Works Department / Irrigation Department who if convinced that prima-facie the contractor's claim rejected by Superintending Engineer/Chief Engineer is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and decision by the Standing Committee, shall put up to standing committee at Government level for suitable decision.
(Vide P.W. Circl. NO. CAT-1086-CR-110/Bldg.-2 dated 7-5-86)

Clause 31 :- The contractor shall obtain from the Departmental stores, all stores and articles of European or American manufacture which may be required for the work, or any part thereof or in making up any articles required there of or in connection therewith unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-charge will be debited to contractor in his account at the rates shown in the Schedule, in Form A attached to the contract, and if they are not entered in the said schedule, they shall be debited to him at cost price which for the purpose of this contract shall include the cost of carriage and other expenses whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

Stores of European or American manufacture to be obtained from the Government.
**Lumpsums in estimates.**

**Clause 32:** When the estimate on which a tender is made includes lump, sums in respects of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of work in question is not in the opinion of the Engineer-in-charge capable of measurement, the Engineer-in-charge may as his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provision of this clause.

**Actions were no specifications.**

**Clause 33:** In the case of any class of work for which there is no such specification as is mentioned in rule 1 such work shall be carried out in accordance with the Divisional specifications, and in the event of there being no Divisional specification, then in such case the work shall be carried out in all respects in accordance with all instructions and requirements of the Engineer-in-charge.

**Definition of work.**

**Clause 34:** The expression 'work' or 'works' where used in these conditions, shall unless there by something in the subject or context repugnant to such construction, be construct to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original altered substituted or additional.

**Contractor’s percentage whether applied to net or gross amount of bill.**

**Clause 35:** The percentage referred to in the tender shall be deducted from/ added to the gross amount of the bill before deducting the value of any stock issued.

**Refund of quarry fees and royalties.**

**Clause 36:** All quarry fees, royalties, octroi dues and ground rent for stacking materials, if any, should be paid by the contractor.

**Compensation under Workmen’s Compensation Act.**

**Clause 37:** The contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen’s Compensation Act, 1923 (VIII of 1923), (hereinafter called in said Act) for injuries caused to the to the workmen. If such compensation is payable paid by Government as principle under sub-section (1) of section 12 of the said Act on behalf of the contractor, it shall be recoverable by Government from the contractor under sub-section (2) of the said section. Such Compensation shall be recovered in the manner laid down in Clause 1 above.
Clause 37 A :- The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Government the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of Government from any amount due or that may become due to the contractor.

Clause 37 B :- The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the persons employed on the site, and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

(a) The workers shall be required to use the equipment so proved by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.

(b) When work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.

(c) Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Clause 37 C :- The contractor shall duly comply with the provisions of The Apprentices Act, 1961 (III of 1961) the rules made there under and the orders that may be issued from time to time under the Act the said rules and on his failure or neglect to do so, he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

Clause 38 :-
(1) Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rate shall be permitted in respect of any of the items so long as subject to any special provision contained in the specifications prescribing a different percentage of permissible variation the quantity of the item does not exceed the tender quantity by more than 25% and so long as the value of the excess quantity beyond this limit at the rate of the item specified in the tender is not more than Rs.5000/-.  

(2) The contractor shall if ordered in writing by the Engineer so to do also carry out any quantities in excess of the limit mentioned in sub clause (1) hereof on the same conditions as and in accordance with the specifications in the tender and at the rates (i) derived from the rates entered in the current schedule of rates and in the absence of such rates, (ii) at the rate prevailing in the market, the said rates being


Claim for quantities entered in the tender or estimates.
increased or decreased as the case may be by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based upon the schedule of rates applicable to the year in which the tenders were invited. For the purpose of operation of this clause, this cost shall be worked out at current schedule of rate prevailing at the time of acceptance of tender.

(c) Claims arising out of reduction in the tendered quantity of any item beyond 25% will be governed by the provision of clause 15 only when the amount of such reduction beyond 25 percent at the rate of the item specified in the tender is more than Rs.5000/-. (The clause is not applicable to extra items)

(d) The clause is not applicable to extra items.

(e) There is no change in the rate if the excess is more than 25% of the tendered quantity but the value of the excess work at the Tendered rates does not exceed Rs.5000/-

(f) The quantities to be paid at tendered rate shall include:
   (i) Tendered quantity plus 25 %
   (ii) 25% excess of the Tendered quantity or the excess quantity of the value of Rs. 5000/- at the Tendered rates whichever is more.

Clause 39 :- The contractor shall employ any famine, convict or other labour of a particular kind or class if ordered in writing to do so by the Engineer-in-charge.

Clause 40 :- No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or, in the case of clearance works, on account of any delay in according to sanction estimates.

Clause 41 :- No compensation shall be allowed for any delay in the execution of the work on account of water standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil, excavation in mud, soil, water standing in borrow pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

Clause 42 :- The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer-in-charge or of his subordinate in charge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.
Clause 43 :-

(i) No contractor shall employ any person who is under the age of 18 years.

(ii) No contractor shall employ donkeys or other animals with breeching of string or thin rope. The breeching must be at least three inches wide and should be of tape (Newar).

(iii) No animal suffering from sores, lameness or emaciation or which is immature shall be employed on the work.

(iv) The Engineer-in-charge or his Agent is authorised to remove from the work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by Government for any delay caused in the completion of the work by such removal.

(v) The contractor shall pay fair and reasonable wages to the workmen employed by him, in the contract undertaken by him. In the event of any dispute arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Executive Engineer, who shall decide the same. The decision of the Executive Engineer shall be conclusive and binding on the contractor but such decision shall not in any way affect the conditions in the contract regarding the payment to be made by Government at the sanctioned tender rates.

(vi) Contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged on large work in urban areas.

(vii) Contractor to take precaution against accidents which take place on account of labour using loose garments while working near machinery.

(viii) All facilities provided in the contract labour should be provided (Regulation and Abolition Act 1971): The Maharashtra Contract Labour Regulation & Abolition Rule 1971 should be provided.

Clause 44 :- Payment to contractors shall be made by cheque drawn on any treasury within the division convenient to them, provided the amount exceeds Rs. 10/- Amounts not exceeding Rs.10/- will be paid in cash.

Clause 45 :- Any contractor who does not accept these conditions shall not be allowed to tender for works.

Clause 46 :- If Government declares a state of scarcity or famine to exit in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Executive Engineer, or be any person to whom the Executive Engineer may have delegated this
duty in writing to be in need of relief and shall be bound to pay to such
person wages, not below the minimum which Government may have
fixed in this behalf. Any disputes which may arise in connection with
the implementation of this clause shall be decided by the Executive
Engineer whose decision shall be final and binding on the contractor.

Clause 47 :- The price quoted by the contractors shall not in any case
exceed the control price, if any, fixed by Govt. or reasonable price
which it is permissible for him to charge a private purchaser for the
same class and description, the controlled price or price permissible
under Hoarding and Profiteering Ordinances, 1948 as amended from
time to time, If the price quoted exceeds the controlled price or the
price permissible under Hoarding and Profiteering Prevention
Ordinance, the contractor will specifically mention this fact in his
tender along with the reasons for quoting such higher prices. The
purchaser at his discretion will in such case exercise the right of
revising the price at any stage so as to conform with the controlled
price on the permissible under the Hoarding and Profiteering
Prevention Ordinance This discretion will be exercised without
prejudice to any other action that may be taken against the contractor.

Clause 47 A :- The tendered rates are inclusive of all taxes, rates,
cesses and are also of the leviable tax in respect of sale by transfer of
property in goods involved in the execution of a work contract under
the provision of Rule 58 of Maharashtra Value Added Tax Act – 2005,
for the purpose of levy of Tax.

Clause 48 :- The rates to be quoted by the contractor must be
inclusive of sales tax No extra payment on this account will be made
to the contractor.

Clause 49 :- In case of materials that may remain surplus with the
contractor from those issued for the work contracted for, the date of
ascertaining of the materials being surplus will be taken as the date
of sale for the purpose of sales tax and the sales tax will be recovered
on such sale.

Clause 50 :- The contractor shall employ at least 80 percent of the
total number of unskilled labour to be employed by him on the said
work from out of the persons ordinarily residing in the district in which
site of the said work is located. provided, however, that if the required
number of unskilled labour from that district is not available, the
contractor shall in the first instance employ such number of persons as
is available, and thereafter may with previous permission in writing of
the Executive Engineer in charge of the said work, obtain the rest of
the requirement of unskilled labour form out side district.
Clause 51 :-  Wages to be paid to the skilled and unskilled labourers engaged by the contractor. The contractor shall pay the labourers skilled and unskilled according to the wages prescribed by the Minimum Wages Act of 1948 applicable to the area in which the work of the Contractor is in Progress. The Contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer, may in his discretion cancel the contract. The Contractor shall also be liable, for any pecuniary liability arising on account of any violation by him of the provision of the Act. The contractor shall pay the labourers skilled and unskilled according to the wages prescribed by the Minimum Wages Act of 1948 applicable to the area in which the work of the Contractor is in Progress.

Clause 52 :-  All amounts whatsoever which the contractor is liable to pay to the Government in connection with the execution of the work including the amount payable in respect of (i) Materials and or stores supplied/issued hereunder by the Government to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given on hire by the Government to the contractor for execution by him of the work and/or on which advances have been given by the Government to the contractor shall be deemed to be arrears of the Land Revenue and the Government may without prejudice to any other rights and remedies of the Government recover the same from the contractor as arrears of Land Revenue.

Clause 53 :-  The Contractor shall duly comply with all the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971 as amended from time to time and all other relevant statutes and statutory provisions concerning payment of wages particularly to workmen employed by Contractor and working on the site of the work. In particular the Contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971. If the Contractor fails or neglects to pay wages at the said rates or makes short payment and the Government makes such payment of wages in full or part thereof less paid by the Contractor as the case may be, the amount so paid by the Government to such workers shall be deemed to be arrears of land revenue and the Government shall be entitled to recover the same as such from the Contractor or deduct same from the amount payable by the Government to the contractor hereunder or from any other amount payable to him by the Government.
Clause 54 :- The Contractor shall engage apprentices such as brick layer, carpenter, wiremen, plumber, as well as blacksmith by recommended by the State Apprentice Ship Advisor Director of Technical Education, Dhobi Talaw, Bombay-1. In the construction work (As per Government of Maharashtra, Education Department No.TSA/5170/T/56689, dated 7/7/72.)


CONDITIONS FOR MALARIA ERADICATION

ANTI MALARIA AND OTHER HEALTH MEASURES

a) The anti-malaria and other health measures shall be as directed by the Joint Director (Malaria and Filaria) of Health Services, Pune.

b) The Contractor shall see that mosquitogenic conditions are not created so as to keep vector population to minimum level.

c) The Contractor shall carry out anti-malaria measures in the area as per guidelines prescribed under National Malaria Eradication Programme and as directed by the Joint Director (Malaria and Filaria) of Health Services, Pune.

d) In case of default in carrying out prescribed anti-malaria measures resulting in Increase in malaria incidence, contractor shall be liable to pay to Government the amount spent by the Government on anti-malaria measures to control the situation in addition to fine.

e) RELATION WITH PUBLIC AUTHORITIES: - The contractor shall make sufficient arrangements for draining away the sewerage water as well as water coming form the bathing and washing places and shall dispose off this water in such a way as not to cause any nuisance. He shall also keep the premises clean by employing sufficient number of sweepers. The contractor shall comply with rules, regulations, bye-laws and directions given from time to time by any local or public authority in connection with this work and shall pay fees or charges which are leviable on him without any extra cost to Government. (Government of Maharashtra P.W.D. Resolution No. CAT-1086 / CR-243/K/Bldg.-2 Mantralaya, Mumbai, Dated 11/08/1987)
Clause 56: CONDITIONS RELATING TO INSURANCE OF CONTRACT WORK

The Contractor shall take out Insurance Policy / Policies (viz. Contractor’s All Risks Insurance Policy, Erection All Risks Insurance Policy etc. as directed by the Directorate of Insurance) so as to provide adequate insurance cover for execution of the awarded contract work for total contract value and complete contract period COMPULSORILY from the “Directorate of Insurance, Maharashtra State, Mumbai” only. Its postal address for correspondence is “264, MHADA, First Floor, Opposite Kalanagar, Bandra (East), Mumbai – 400 051. Telephone No. 022 – 26590403 / 26590690 and Fax No. is 022 – 26592461 / 26590403. Similarly all workmen’s appointed to complete the contract work are required to insure under Workmen’s Compensation Insurance Policy. Insurance Policy / Policies taken out from any other company will not be accepted. If any Contractor has not taken out the Insurance Policy from the Directorate of Insurance, Maharashtra State Mumbai or have effected insurance with any Insurance Company, the same will not be accepted and on percent (1%) of the tender amount or such amount of premium calculated by the Government Insurance Fund will be recovered directly from the amount payable to the Contractor for the executed contract work and paid to the Directorate of Insurance Fund, Maharashtra State, Mumbai. The Director of Insurance reserves the right to distribute risks of insurance among the other insurers.

Clause 57: Building and Other Construction Workers Welfare Cess:

SCHEDULE ‘A’

Name of Work:-  S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur-Adkur to S.H.189, M.D.R.66 Km. 4/ 300 to 7/400,  
Tal. - Chandagad, Dist. - Kolhapur. (Part - Kruni to Gavase)

Schedule quantities showing (approximately) the materials to be supplied from the Department Stores to be executed and preliminary and ancillary works and the rates at which they are to be charged for

<table>
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<tr>
<th>Particulars</th>
<th>Quantity</th>
<th>Rates of which the material will be charged to contractor</th>
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Condition :-

1. The material like Cement, Mild steel, H.Y.S.D./ TMT-FE-415/ TMT-FE-500 Bars and other all materials supplied by the contractor should be tested as per Indian Standard and the circulars published by Public Works Department in Government Laboratory. (A.R.C. and Q.C.C. office)

2. The detailed procedure regarding taking test results of the building, construction materials such as cement, steel and other materials etc. should be as per standard norms.

3. The regular procedure regarding testing of materials and keeping necessary registers shall invariably be followed.

NOTE :-

1. The person of firm submitting the tender should see that the rates in the above schedule are filled up by the Executive Engineer-in-charge on issue of the form prior to the submission of the tender.

2. If the material prescribed in schedule A is not available with Department, then contractor should bring material from the market prior sanction from Department. The material purchased should be get tested from the laboratory suggested by the Engineer in charge.

Signature of contractor No. of Corrections Executive Engineer
ADDITIONAL CONDITION FOR MATERIALS

1. All the materials such as Cement, Steel, Asphalt etc. shall be procured by the contractor from approved Government institutions or as directed by Engineer-in-charge only. The material shall be brought at the site of work well in advance by the contractor. The gate pass / invoice of the material shall be examined by the authorised representative of the Engineer-in-charge.

2. The contractor shall submit periodically as well as on completion of work, an account of all materials used by him on the work. In addition, a separate register shall be maintained on site for recording daily item wise Cement, Steel, Asphalt consumption and also item wise consumption of other materials. This shall be signed daily by contractor or his representative and representative of Engineer-in-charge.

3. All the materials required for the work shall be procured from the approved Government institutions or as directed by Engineer-in-charge only. The materials from any other source in lieu of the approved institutions shall not be allowed except under written permission from the Executive Engineer. In such case, certificate for its quality shall be produced by the contractor and samples of materials shall be tested from any Government Laboratory by the contractor at his own cost and the test results be supplied to the Department. The materials not conforming the required standard shall be removed at once from the site of the work by the contractor at his own cost. All the materials such as Cement and Steel required for use in the work shall be conforming to the concerned I.S.I. mark/ P.W.D. / M.O.S.T. Specification. The contractor shall get necessary tests carried out to the frequency specified for each materials in the specification and submit the test results to the Engineer-in-charge or his authorised representative. These materials shall be used on work by the contractor, only it the tests thereof are found satisfactory to the Engineer-in-charge or his authorised representative. For the purpose of daily testing of material, such as metal, sand, rubble, etc. the contractor shall make his own arrangements to install a well equipped laboratory at the site of work at his own cost. The contractor shall employ qualified personnel in this laboratory at his own cost. The responsibility of carrying out tests to the frequency specified for each material shall rest with the contractor. The extract of register shall be submitted to the Executive Engineer with each bill. Copy of register for the entire period shall be submitted along with the final bill.

4. The contractor shall construct at his own cost shed / sheds as per direction of the Engineer-in-charge of the work for storing the materials and provide double locking arrangements. The store shed such constructed shall be removed on completion of work. The contractor shall take all necessary steps to guard the materials brought by him.

5. The contractor shall make his own arrangement for the safe custody of the materials brought by him on site of work.
6. The charges for conveying of materials from the place of purchase by the contractor to the site of work and the actual spot on work site shall be entirely borne by the contractor. No claims on his account shall be entertained.

7. A separate register shall be maintained by the contractor on site for recording detailed item wise cement and steel consumption on the work. This register shall be signed by the contractor or his authorised representative and got signed from the representative of the Engineer-in-charge.

8. The material required only for this work shall be kept in the godown at site. No materials shall be shifted out side of the godown except for the work for which this agreement is entered without prior approval of the Engineer-in-charge.

9. The contractor shall produce sufficient documentary evidence i.e. bill for the purchase, octroi receipts etc. for the purchase of material brought on the work site at once if so requested by the Department.

10. All these materials i.e. cement, steel etc. shall be protected from any damages, rains etc. by the contractor at his own cost and risk.

11. The contractor will have to erect temporary shed of approved specifications for storing of above materials at work site having double lock arrangements (By double lock it is meant the godown shall always be locked by two locks one lock being owned and operated by Contractor and other by Engineer-in-charge or his authorised representative and the doors shall be openable only after both locks are opened.)

12. If required, the weightment of cement bags / steel etc. brought by the contractor shall be carried out by the Contractor at his own cost.

13. The contractor shall not use cement and other material for the item to be executed outside the scope of this contract except for such ancillary small item as are connected and absolutely necessary for execution of this work as may be decided by the Engineer in charge.

14. The Government shall got be responsible for the loss in cement and steel during transit to work site. The cement brought by the Contractor at the work site store shall mean 50 Kg. Equivalent to 0.0347 Cubic Meter per bag by weight. The rate quoted should correspond to this method of reckoning. In case of ordinary / controlled concrete, if cement is found short, the shortage / storages will be made good by the contractor at his cost.

Signature of contractor  No. of Corrections  Executive Engineer
15. The R.C.C. pipes required for the work shall be procured from the MISSIDC only. The payment toward providing and fixing NP2 / NP3 / NP4 pipes will be released only after the contractor submits the bills of MISSIDC to authenticate that the pipes have been purchased from the MISSIDC. No payment towards the item of providing and laying of the pipe will be released in absence of the submission of requisite document. After completion of these items in the particular kilometer the withheld payment will be finally released.

16. **Indemnity**: The condition regarding indemnity as defined on pages at Sr. No. 4 will apply mutates-mutandis in case of material brought by contractor at the site for the execution of the work being executed under this contract.

17. In case the material brought by the Contractor become surplus owing to the change in the design of the work, the material should be taken back by the Contractor at his own cost after prior permission of Engineer-in-Charge.

18. Empty asphalt drums shall be the property of the Contractor and the same shall be removed immediately after completion of work.

19. All empty cement bags shall be returned by Contractor to Department and the Executive Engineer shall preserve them for one year as token of proof of use of cement in proper proportion in work.
ARRANGEMENT OF MATERIALS

1. The Contractor shall make his own arrangement for supply of materials including bitumen 60/70 grade, and 30/40 grade, cement and steel R.C.C pipes / collars. The Contractor shall be responsible for all transportation and storage of the materials at site and shall bear all the related costs. The Engineer shall be entitled at any time, to inspect or examine all such materials. The Contractor shall provide reasonable assistance for such inspection or examination as may be required.

2. The Contractor shall keep as accurate record of use of materials like bitumen, cement and steel used in the works in a manner prescribed by the Engineer.

3. After receiving the bitumen the authorised challan / gate pass should be obtained from the refinery mentioned in the quality of bitumen, grade of bitumen, date, time of delivery etc. and it should be handed over to department for each consignment.

4. While transportation of bouzer a through transport pass should be obtained from the corporation / municipality through which the bouzer is passed and same should be handed over to the authorised person of Department.

5. If there is any doubt regarding the material received, the same should be get tested from the Government laboratory at the cost of the Contractor, and if the results are substandard, the material or the work executed with such material will be rejected.

6. The day to day record of the receipt / utility / balance of material should be kept by the Contractor at plant site / site of work / store and same will be checked by the Engineer-in-charge or authorised engineer at any time.

7. The procurement of cement/ steel etc. should be from authorised manufacturing company and the vouchers regarding purchase thereof shall be submitted to Engineer-in-charge.

8. The testing charges shall be entirely borne by the Contractor.

SPECIAL ATTENTION OF CONTRACTOR FOR EXECUTION

Procurement of material :-

1. Department will not supply any material for execution of work such as Cement, Tor Steel/ TMT-FE-415 / TMT-FE-500, Asphalt etc. The contractor has to arrange the same from his own source. The quality of the material brought to the site by the contractor should be verified through the various tests provided as per relevant Indian Standards at the cost of the contractor.

2. The adjustment for variation in cost prices of Mild steel and Tor steel bars, structural steel, cement (all tested quality) shall be separately made corresponding to the difference in the cost as per the basic price mentioned hereafter and the purchase price of the material subject to limitation of price.

3. The contractor shall construct shed / sheds at his own cost and as per direction of the Engineer-in-charge for storing the materials brought by him and provide double locking arrangements, one lock shall be in the charge of departmental person and material shall be taken for use in presence of the departmental person only.
Accompaniment to Government Resolution
Public Works Department No.CAT/06/04/148, Dated 16/05/2005

PRICE VARIATION CLAUSE

1. If during the operative period of the contract as defined in condition (i) below, there shall be any variation in the Consumer Price Index (New Series) for industrial workers for Kolhapur Center as per the Labour Gazette published by the Commissioner of Labour, Government of Maharashtra and/or in the wholesale Price Indices for cement, steel and other material all commodities prepared by the Office of Economic Adviser, Ministry of Industry, Government of India, or in the price of Petrol/Oil and Lubricants, and major construction materials like Bitumen, Cement, Steel, various types of metal pipes etc., then subject to other conditions mentioned below, price adjustment on account of (1) Labour Component, (2) Material Component, (3) Petrol/Oil and Lubricants Component, (4) Bitumen Component, (5) HYSD/TMT-FE-415 and Mild Steel Component, (6) Cement Component, (7) C.I. and D.I. Pipes Component calculated as per the formula hereinafter, appearing shall be made. Apart from these, no other adjustments shall be made to the contract price for any reasons whatsoever. Component percentage as given below are as of the total cost of work put to tender. Total of Labour, Material and POL components shall be 100 and other components shall be as per actuals.

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</tr>
<tr>
<td>(7) C.I. and D.I. Pipes Component</td>
<td>Actual</td>
</tr>
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Note :- If Cement, Steel, Bitumen, C.I. and D.I. Pipes are supplied on Schedule ‘A’, then respective component shall not be considered. Also particular component is not relevant same shall be deleted.

(1) Formula for Labour Component

\[ V_1 = 0.85 \times P \times \left\{ \frac{K_1}{100} \times \frac{(L_1 - L_0)}{L_0} \right\} \]

where,

\[ V_1 = \text{Amount of price variation in Rupees to be allowed for Labour component.} \]
Cost of work done during the quarter under Consideration.

Minus the cost of Cement, HYSD/TMT-FE-415 / TMT-FE-500 and Mild Steel, bitumen, C.I and D.I. Pipes calculated at the basic star rates as applicable for the tender, consumed during the quarter under consideration.

(These star rates shall be specified here)

(1) Bitumen Component
Grade 60/70 (Bulk) Rs.53,572/- M.T.
Bitumen (Emulsion) Rs.----------/- M.T.

(2) TMT-FE-500, TMT-FE-500 Steel Rs.----------/- M.T.
Structural Steel and Structural Steel Rs.----------/- M.T.
Mild Steel Component Mild Steel Rs.----------/- M.T.

(3) Cement Component Rs.6,100/- M.T.

(4) C.I. and D.I. Pipe Component

Percentage of labour component as indicated above.

Basic consumer price index for Kolhapur center shall be average consumer price index for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.

Average consumer price index for Kolhapur center for the quarter under consideration.

Formula for Material Component

$V_2 = 0.85 \times P \times \left\{ \frac{K_2}{100} \times \frac{(M_1 - M_0)}{M_0} \right\}$

where,

Amount of price variation in Rupees to be allowed for Materials component.

Same as worked out for labour component.

Percentage of material component as indicated above.

Basic wholesale price index shall be average wholesale piece index for the quarter preceding the month in which to the last date prescribed for receipt of tender falls.

Average wholesale price index during the quarter under consideration.

Formula for Petrol, Oil and Lubricant Component

$V_3 = 0.85 \times P \times \left\{ \frac{K_3}{100} \times \frac{(P_1 - P_0)}{P_0} \right\}$

where,

Amount of price variation in Rupees to be allowed for POL component.

Signature of contractor No. of Corrections Executive Engineer
\[ P = \text{Same as worked out for labour component.} \]
\[ K_3 = \text{Percentage of Petrol, Oil and Lubricant Component.} \]
\[ P_0 = \text{Average price of HSD at Kolhapur during the quarter preceding the month in which the last date prescribed for receipt of tender falls.} \]
\[ P_1 = \text{Average price of HSD at Kolhapur during the quarter under consideration.} \]

(4) **Formula for Bitumen Component**

\[ V_4 = Q_B \times (P_1 - P_0) \]

where,

- \( V_4 \) = Amount of price variation in Rupees to be allowed for Bitumen component.
- \( Q_B \) = Quantity of Bitumen (Grade) in metric tones used in the permanent works and approved enabling works during the quarter under consideration.
- \( P_1 \) = Current average ex-refinery price per metric tonne of Bitumen (Grade) under consideration including taxes (octroi, excise, sales tax) during the quarter under consideration.
- \( P_0 \) = Basic rate of Bitumen in rupees per metric tonne as considered for working out value of \( P \) or average ex-refinery price in rupees per metric tonne including taxes (octroi, excise, sales tax) of Bitumen under consideration for prevailing quarter preceding the month in which the last date prescribed for receipt of tender, falls, whichever is higher.

(5) **Formula for H.Y.S.D./TMT-FE-415/ TMT-FE-500 and Mild Steel Component**

\[ V_5 = \left\{ \frac{S_0 \times (S_{I1} - S_{I0})}{S_{I0}} \right\} \times T \]

where,

- \( V_5 \) = Amount of price variation in Rupees to be allowed for HYSD/TMT-FE-415/ TMT-FE-500 / Mild Steel component.
- \( S_0 \) = Basic rate of HYSD/TMT-FE-415 / TMT-FE-500 / Mild Steel in rupees per metric tonne as considered for working out value of \( P \).
- \( S_{I1} \) = Average Steel index as per RBI Bulletin during the quarter under consideration.
- \( S_{I0} \) = Average Steel index as per RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.
- \( T \) = Tonnage of Steel used in the permanent works for the quarter under consideration.

(6) **Formula for Cement Component**

\[ V_6 = \left\{ \frac{C_0 \times (C_{I1} - C_{I0})}{C_{I0}} \right\} \times T \]

where,

- \( V_6 \) = Amount of price variation in Rupees to be allowed for Cement component.
- \( C_0 \) = Basic rate of Cement in rupees per metric tonne as considered for working out value of \( P \).
- \( C_{I1} \) = Average Steel index as per RBI Bulletin during the quarter under consideration.
- \( C_{I0} \) = Average Steel index as per RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.

Signature of contractor \hspace{1cm} No. of Corrections \hspace{1cm} Executive Engineer
\[ V_6 = \text{Amount of price variation in Rupees to be allowed for Cement component.} \]
\[ C_0 = \text{Basic rate of Cement in rupees per metric tonne as considered for working out value of } P. \]
\[ C_{l_1} = \text{Average Cement index published in the RBI Bulletin for the quarter under consideration.} \]
\[ C_{l_0} = \text{Average of Cement index published in the RBI Bulletin for the quarter preceding the month in which to the last date prescribed for receipt of tender, falls.} \]
\[ T = \text{Tonnage of Cement used in the permanent works for the quarter under consideration.} \]

(7) Formula for C.I. / D.I. Pipe Component
\[ V_7 = Q_d \times (D_1 - D_0) \]
where,
\[ V_7 = \text{Amount of price variation in Rupees to be allowed for C.I. / D.I. Pipe component.} \]
\[ D_0 = \text{Pig Iron basic price in rupees per metric tonne as considered for working out value of } P. \]
\[ D_1 = \text{Average Pig Iron price in rupees per tonne during the quarter under consideration (Published by IISCO).} \]
\[ Q_d = \text{Tonnage of C.I./D.I. pipes used in the works during the quarter under consideration.} \]

II. THE FOLLOWING CONDITIONS SHALL PREVAIL :-

(i) The operative period of the contract shall mean the period commencing from the date of work order issued to the Contractor and ending on the date which the time allowed for completion of the work specified in the Contract for work expires, taking into consideration the extension of time, if any for completion of the work granted by Engineer under the relevant clause of the Conditions of Contract in cases other than those where such extension is necessitated on account of default of the Contractor. The decision of the Engineer as regards the operative period of the Contract shall be final and binding on the Contractor. Where any compensation for liquidated damages is levied on the Contractor on account of delay in completion or inadequate progress under the relevant Contract provisions, the Price adjustment amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices \( L_1, M_1, C_1, P_1, B_1, S_1 \) and \( C_{l_1} \), to the levels corresponding to the date from which such compensation is levied.

(ii) This Price Variation Clause shall be applicable to all contracts in B-1/ B-2 and C forms but shall not apply for price works. The Price Variation shall determined during each quarter as per formula given above in this clause.
(iii) The Price Variation under this clause shall not payable for the extra items required to be executed during the completion of the work and also on the excess quantities of items payable under the provisions of Clause 38/37 of the contract form B-1/B-2 respectively since the rates payable for the extra items or the extra quantities under Clause 38/37 are to be fixed as per the current D.S.R. or as mutually agreed to yearly revision till completion of such work. In other words, where the completion / execution of extra items as well as extra quantities under Clause 38/37 of the contract form B-1/B-2 extends beyond the operative date of the then D.S.R. then rates payable for the same beyond that date shall be revised with reference to the current D.S.R. prevalent at that time on year to year basis or revised in accordance with mutual agreement thereon, as provided for in the Contract, whichever is less.

(iv) This Clause is operative both ways, i.e. if the price variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the contractor and if it is on the negative side, the Government shall be entitled to recover the same from the contractor and the amount shall be deductible from any amounts due and payable under the contract.

(v) To the extent that full compensation for any rise or fall in costs to the contractor is not entirely covered by the provision of this or other clauses in the contract, the unit rate and prices included in the contract shall be deemed to include amounts to cover the contingency of such other actual rise or fall in costs.
# ADDITIONAL GENERAL CONDITIONS AND SPECIFICATION

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Signature of contractor     No. of Corrections     Executive Engineer
ADDITIONAL GENERAL CONDITIONS AND SPECIFICATIONS

1. These are to apply as additional specifications and conditions, unless otherwise already provided for contradictorily else where in this contract.

2. CONTRACTOR TO STUDY SITE CONDITIONS :-

   The contractor shall be deemed to have carefully examined the work and site conditions including labour, the general and the special conditions specifications, schedules and drawings and shall be deemed to have visited the site of the work and to have fully informed himself regarding the local conditions and carried out his own investigations to arrive at rates quoted in the tender. In this regard, he will be given necessary information to the best of knowledge of Department but without any guarantee about it.

   In addition to above Contractor shall make all necessary arrangements to carry out all necessary detail surveys and deliver desired outputs in printed / soft as instructed by the Engineer-in-Charge during the currency of the project that is from start to finish of the work / project.

   To carry out such surveys and deliver desired outputs in printed / soft as instructed by Engineer-in-Charge as mentioned above the Contractor shall appoint a survey agency with the approval of the Engineer-in-Charge, for that, Contractor shall submit list of three survey agencies to Engineer-in-Charge, along with the payment of his security deposit (as required under the clause one of the B-1 contract). The Engineer-in-Charge on receipt of such list will select one survey agency out of the three and communicate it along with the work order to contractor. Contractor should appoint survey agency as selected by the /engineer-in-Charge. The survey agency shall not be changed without permission of the Engineer-in-Charge.

   The survey agency and/or contractor shall have a

1) Latest survey instruments and / or equipments viz. total station, auto levels, plotter etc.
2) Auto CAD, non auto CAD base software to deliver desired outputs based on survey carried out using (1) above in printed / soft copy as instructed by Engineer-in-Charge.
3) Necessary trained manpower to work on and deliver as (1) & (2) above

   For appointing survey agency to carry out such surveys and deliver desired outputs in printed / soft copy as instructed by Engineer-in-Charge as mentioned above the Contractor shall not be paid separately. His offer shall be inclusive of all.

   If he shall have any doubt as to the meaning of any portions of these general conditions or the special conditions, or the scope of work or the specifications & drawings, or any other matter concerning the contract, he shall in good time, before submitting his tender, set forth the particulars there of and submit them to the Executive Engineer, Public Works (South) Division, Kolhapur, in writing in order that such doubts may be clarified authoritatively tendering. Once a tender is submitted, the matter will be decided according to tender conditions in the absence of such authentic pre-clarification.

Signature of contractor    No. of Corrections    Executive Engineer
3. DECLARATION OF THE CONTRACTOR :-
The contractor should sign the declaration form on page No. 49.

4. INDEMNITY :-
The contractor shall indemnify the Government against all actions, suits claims and demand brought or made against him in respect of anything done or committed to be done by the contractor in execution of or in connection with the work of this contract and against any loss or damaged to the Government in consequence of any action or suit being brought against the contractor for anything done or committed to be done in the execution or the work of this contract.

5. DEFINITIONS :- Unless excluded by or repugnant to the context

(a) The expression "Government" as used in the tender papers shall mean the Public Works Irrigation and Housing Department of the Government of Maharashtra.

(b) The expression "Chief Engineer" as used anywhere in the tender papers shall mean chief Engineer of the Government of Maharashtra who is designated as such.

(c) The expression "Superintending Engineer" as used in the tender papers shall mean an officer of Superintending Engineer's rank (by whatever designation he may be known) under whose control work lies for the time being.

(d) The expression "Engineer" or Engineer-in-charge" as used in the tender papers shall mean the Executive Engineer-in-charge of the work for the time being.

(e) The expression "Contractor" used in the tender papers shall mean the successful tenderer whose tender has been accepted, and who has been authorised to proceed with the work.

(f) The expression "Contract" as used in tender papers shall mean the deed to contract together with its original accompaniment and those latter incorporated in it by mutual consent.

(g) The expression "plant" as used in the tender papers shall mean every temporary and necessary or considered necessary by the Engineer to execute construct, complete and maintain the works and used in altered, modified, substituted and additional work ordered in the time and the manner herein provided and all temporary materials and special and other articles of appliances of every sort, kind and description whatsoever intended or used there of.

(h) "Drawings" shall mean the drawings referred to in the specifications and any modifications of such drawings approved in writing by Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.

(i) "Engineer's representative" shall mean an assistant of the Engineer notified in writing to the Contractor by the Engineer.
(j) 'Provisional sum' or 'provisional lump sum' shall mean lump sum included by Government in tender documents and shall represent the estimated value of work for which details are not available at the time of issue of tender.

(k) Provisional items shall mean items for which approximate quantities have been included in the tender documents.

(l) The 'site' shall mean the lands and/or other places, on under, in or through which the work, is to be executed under the contract including any other lands or places which may be allotted by Government used for the purpose of contract.

(m) The work shall mean the works to be executed in accordance with the contract or part(s) thereof as the case may be and shall include all extra or additional altered or substituted works as required for performance of contract.

(n) The "Contract Sum" shall mean the sum for which the tender is accepted.

(o) The "Accepting Authority" shall mean the officer competent to accept the tender.

(p) The "Day" shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in any day in that week.

(q) "Temporary works" shall mean all temporary works of every kind required in or about the execution, completion, or maintenance of the works.

(r) "Urgent works" shall mean any measure which in the opinion of the Engineer-in-charge, become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the persons working thereon.

Where the context so requires, works importing the singular only also include the plural and vice-versa.

Heading and marginal notes, if any, to the general conditions shall not be deemed to from part thereof or be taken into consideration in the interpretation or construction thereof of the contract.

Wherever there is mention of "Schedule of rates" of the Division or simply D.S.R. in this tender it will be taken to mean as the "schedule of the rate of the Division in whose jurisdiction the work lies."

6. ERRORS, OMISSIONS AND DISCREPANCIES:

a. In case of errors, omissions and/or disagreement between written and scaled dimensions on the drawing or between drawings and specifications etc. the following order of preference shall apply

(i) Between actual scaled and written dimensions or description a drawing the latter shall be adopted.

(ii) Between the written or shown description or dimensions in the drawing and corresponding one in the specifications, the latter shall apply.

(iii) Between the quantities shown in schedule of quantities and those arrived at from the drawings the latter shall be preferred.

(iv) Between the written description of the item in the schedule of quantities and the detailed description in the specifications of the same items, the later shall be adopted.

Signature of contractor       No. of Corrections       Executive Engineer
b. In case of discrepancy between percentage rate quoted in figures and words, the lowest of the two will be considered for acceptance of tender.

c. In all cases of omissions and or doubts or discrepancies in the dimensions or description of any item or specification, a reference shall be made to the Executive Engineer Public Works (South) Division, Kolhapur whose elucidation, elaboration or decision shall be considered as authentic. The contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.

d. The special provision in detailed specifications and wording of any item shall gain precedence over corresponding contradictory provision (if any) in the Standard Specifications of public works Department Hand Book where reference to such specifications is given without reproducing the details in contract.

7.1 PROGRAMME OF WORK:

The work is required to be completed within a period of 9 (Nine) months (including the monsoon period).

7.2 a) METHODOLOGY OF CONSTRUCTION AND CONSTRUCTION EQUIPMENT:

Contractor shall furnish at least 15 days in advance his programme of commencement of item of work, the details of actual methods that would be adopted by the contractor for the execution of various items of work such as well sinking, cast-in-situ, superstructure for Bridge work and earth work, W.B.M. Black topping items etc. for Road works supported by necessary detailed drawing and sketches including those of the Plant and Machinery that would be used, their locations, arrangement for conveying and handling materials etc. and obtain prior approval of Engineer-in-charge well in advance of starting of such item of work. The Engineer-in-charge reserves the right to suggest modifications or make complete changes in the method proposed by the contractor, whether accepted previously or not at any stage of the work, to obtain the desired accuracy, quantity and progress of he work which shall be binding on the contractor, and no claim on account of such change in method of execution will be entertained by Government so long as specifications of the item remain unaltered. The sole responsibility for the safety and adequacy of the methods adopted by the contractor, will however, rest on the contractor, irrespective of any approval given by the Engineer.

In case of slippage from the approved work programme at any stage, the contractor shall furnish revised programme to make up the slippage within the stipulated time schedule and obtain the approval of the Engineer to the revised programme.
b) CONSTRUCTION EQUIPMENT :-

i) The contractor shall be required to give a trial run of the equipments for establishing their capability to achieve the laid down specifications and tolerance to the satisfaction of the Engineer before commencement of the work. All equipment provided shall be of proven efficiency and shall be operated and maintained at all times, in a manner acceptable to the Engineer and no equipment or personnel will be removed from site without permission of the Engineer.

ii) The Contractor’s Hot Mix plant shall be located within travelling distance of 40Kms. from the site of work without interruption and natural obstructions and smooth plying of dumpers with average speed of 40 Kms. per hour. Location of Hot Mix Drum Mix Plant should be such that maximum time taken for transporting bitumen mix from plant site to the Paver does not exceed 60 minutes.

c) PROGRESS SCHEDULE :-

The contractor shall furnish within the period of one month of the order to start the work, the programme of work in CPM/PERT charts in quadruplicate indicating the date of actual start, the monthly/progress expected to be achieved and the anticipated completion date of each major item of work to be done by him also indicating dates of procurement and setting up of materials, plant and machinery. The schedule is to such as is practicable of achievement towards the completion of whole work in the tune limit, the particulars items, if any, on the due dates specified in the contract and shall have the approval of the Engineer-in-charge. No revised schedule shall be operative without such acceptance in writing. The Engineer is further empowered to ask for more detailed schedule or schedules say, week by week for any item or items, in case of urgency of work as will be directed by him and the contractor shall supply the same as and when asked for.

The contractor shall furnish sufficient plant, equipment and labour as may be necessary to maintain the progress of schedule. The working and shift hours restricted to one shift a day for operations to be done under the Government supervision shall be such as may be approved by the Engineer-in-charge. They shall not be varied without the prior approval of the Engineer. Night work which requires supervision shall not be permitted except when specifically allowed by Engineer each time, if requested by the Contractor. The contractor shall provide necessary lighting arrangements etc. for night work as directed by Engineer without extra cost to Government.

Further the contractor shall submit the progress report of work in prescribed forms and charts etc. at periodical intervals, as may be specified by the Engineer-in-charge. Schedule shall be in the form of progress charts, forms progress statement and/or reports as may be approved by the Engineer.

The contractor shall maintain proforma, charts, details regarding machinery, equipment, labour, materials, personnel etc. as may be specified by the Engineer and submit periodically return there of as may be specified by the Engineer-in-charge.
8. **AGENT AND WORK-ORDER BOOK :-**

The contractor shall himself manage the work or engage and authorised all time agent on the work capable of managing and guiding the work and understanding the specifications and contract conditions. A qualified and experienced, engineer shall be provided by the Contractor as his agent for technical matter in case the Engineer-in-charge considers this is essential for the work & so directs contractors. He will take orders as will be given by the Executive Engineer or his representative and shall be responsible for carrying them out.

This agent shall not be changed without prior intimation to the Executive Engineer and his representative on the work site. The contractor shall supply to the Engineer the details of all supervisory and other staff employed by the contractor and notify changes when made, and satisfy the Engineer regarding the quantity and sufficiency of the staff, thus employed. The Engineer will have the unquestionable right to ask or changes in the quality and numbers of contractor's supervisory staff and to order removal from work of any of such staff. The contractor shall comply with such orders and effect replacements to the satisfaction of the Engineer.

A work order book shall be maintained on site and it shall be the property of Government and the contractor shall promptly sign orders given therein by Executive Engineer or his representative and his superior, officers, and comply with them. The compliance shall be reported by the contractor to the Engineer in good time so that it can be checked. The blank work order book with machine numbered pages will be provided by the Department free of charge for this purpose. The contractor will be allowed to copy out instructions therein from time to time.

9. **Setting out :-**

1) **ROADWORKS**

1 The contractor shall establish working bench marks in the area soon after taking possession of the site. The reference Bench mark for the area shall be as indicated in Contract Documents. The working bench marks/shall be at the rate of four per. KM and also at or near all drainage structures, over bridge and underpasses. The working bench marks/levels should be got approved from the Engineer, Checks must be made on these bench marks once every month and adjustments if any got agreed with the Engineer and recorded, An upto date record of all bench marks including approved adjustment, if any shall be maintained by the contractor and also a copy supplied to the Engineer for his record.

2 The lines and levels of formation, side slopes, drainage, courage ways and shoulder shall be care fully set out and frequently checked, care being taken to ensure that correct gradients and cross sections are everywhere obtained.
3 In order to facilitate the setting out of the works, the center line of the carriageway or highway must be accurately established by the contractor and approved by the Engineer. It must then be accurately referenced in a manner satisfactory to the Engineer, every 50 m intervals in plain and rolling terrain and 20 m intervals in hilly terrain and in all curve points as directed by the Engineer, with marker pages and chainage boards set in or near the fence line, and a schedule of reference dimensions shall be prepared and supplied by the contractor to the Engineer. These markers shall be maintained until the works reach finished formation level and are accepted by the Engineer.

4 On construction reaching the formation level stage the center line shall again be set out by the contractor and when approved by the Engineer shall be accurately referenced in a manner satisfactory to the Engineer by marker page set at the outer limits of the formation.

5 No reference peg or marker shall be moved or withdrawn without the approval of the Engineer and no earthwork of structural work shall be commenced until the center line has been referenced.

6 The contractor will be the sole responsible party for safeguarding all survey monuments, bench marks, beacons etc. The Engineer will provide the contractor with the data necessary for the setting out of the center line. All dimensions and levels shown on the drawings or mentioned in documents forming part of or issued under the contract shall be verified by the contractors on the site and he shall immediately inform the Engineer of any apparent errors or discrepancies in such dimensions or levels. The contractor shall after or in connection with the setting out of the center line, survey the terrain along the road and shall submit to the Engineer for his approval, a profile along the road center line and cross sections at intervals as required by the engineer.

7 After obtaining approval of the Engineer, work on earthwork can commence and profile and cross sections shall form the basis for measurements and payment. The contractor is responsible for checking that all the basic traverse points are in place at the commencement of the contract and if any are the missing or appear to have been disturbed, the contractor shall make arrangements to re-establish these points. A "Survey File" containing the necessary data will be made available for these purpose. If in the opinion of the Engineer, design modifications of the center line or grade are advisable, the Engineer will issue detailed instructions to the contractor and the contractor shall perform the modifications in the field, as required and modify the ground levels on the cross sections accordingly as many times as required. There will be no separate payment for any survey work performed by the contractor. The cost of these services shall be considered as being included in the cost of the items of work in the Bill of Quantities.

8 The work of setting out shall be deemed to be a part of general works preparatory to the execution of work and no separate payment shall be made for the same.
2. SETTING OUT FOR (BRIDGE WORKS) :-

Immediately on receipt of the work order, the Contractor shall at his own expense clean the site and take up a provisional and final setting out and lining out of the work under the supervision of his responsible representative and shall provide necessary material, labour, tools, instruments etc. required for the same.

One tentative abutment location will be indicated by Engineer-in-charge and the centre line of the bridge shall be defined by him. The Contractor will then have to fix up the location of the other abutment. The abutment location will then be verified by the Department and may be adjusted. Once the final location of abutments is so finalised, it will be the Contractor's responsibility to line out and locate the remaining foundations.

The Contractor shall be responsible for true and proper setting out of the works and for the correctness of the positions, level dimensions and arrangements of all parts of works, and for providing all necessary instruments appliances and labours in connection therewith at his own cost. Officers may assist the Contractor in proper setting out. Government instruments may be allowed to be used for setting out of work for which no cost shall be recovered from the Contractor. If at any time during the progress of work, any errors arise in regard to levels or dimensions or alignment of any part of the work, rectification thereof, on being required to do so, will be carried out by the Contractor at his own cost, unless such errors are based on incorrect data, supplied in writing, by the Engineer or his authorised representative in which case the expenses of the rectification shall be refunded by Government.

The checking of any setting out or checking of levels by the Engineer or his authorised representative shall not in any way relieve the Contractor of his responsibility for the correctness thereof. The Contractor shall carefully protect and preserve all bench marks site rails, pegs and other things used in setting out of works.

RESPONSIBILITIES FOR LEVEL AND ALIGNMENT :-

The contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the levels and correctness of every part of the work and shall rectify effectually any errors or imperfections therein, such rectifications shall be carried out by the contractor, at his own cost, when instruction are issued to that effect by the Engineer-in-charge.

10 LEVELLING INSTRUMENTS :-

If measurements of items of the work are based on volumetric measurements calculated from levels taken before and after construction of the item, a large number of leveling staves, tapes etc. will have to be kept available by the Contractor at the site of work for this purpose. Lack of such leveling staves, tapes, etc. in required numbers may cause delay in measurements and the work. The contractor will have therefore to keep sufficient number of these readily available at site.
11 **AUTHORITIES OF THE ENGINEER-IN-CHARGE’S REPRESENTATIVE :-**

The duties of the representative of the Engineer-in-charge to watch and supervise the work and to test and examine any material to be used or workmanship employed in connection with the works.

The Engineer-in-charge may from time to time, in writing delegate to his representative any powers and authorities vested in the Engineer-in-charge and shall furnish to the contractor a copy of all such delegations of powers and authorities. Any written instructions of approval given by the representative of the Engineer-in-charge, to the contractor within the terms of such delegations (but not otherwise) shall bind the contractor and the department as though it had been given by the Engineer-in-charge provided always as follows.

Failure of the representative of the Engineer-in-charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-charge there after to disapprove such work or materials and so order the putting down, removal or breaking up thereof.

12 **CO-ORPINATION :-**

When several agencies for different sub-works of the Project are to work simultaneously on the Project Site, there must be full co-ordination and co-operation between different contractors to ensure timely completion of the whole Project smoothly. The scheduled dates for completion specified in each contract shall therefore, be strictly adhered to. Each contractor may make his independent arrangement for water, power, housing, etc. if they so desire. On the other hand the contractors are at liberty to mutual agreement in this behalf and make joint arrangements with the approval of the Engineer. No single Contractor shall take or cause to be taken any steps or action that may cause disruption discontent, or disturbance of work, labour or arrangement etc. of other Contractor in the Project localities. Any action by any Contractor which the Engineer in his unquestioned discretion may consider as infringement of the above code, would be considered as a breach of the Contract Conditions and shall be dealt with as such.

In case of any dispute, disagreement between the contractors the Engineer's decision regarding the coordination, co-operation and facilities to be provided by any of the contractors shall be final and binding on the contractors concerned and such a decision or decisions shall not vitiate any contract not absolve the contractor(s) of his/their obligations under the contract nor consider for the grant for any claim or compensation.

13 **ASSISTANCE IN PROCURING PRIORITIES. PERMITS ETC. :-**

The Engineer, on a written request by the contractor, will if in his opinion the request reasonable and in the interest of work and its progress, assist the contractor in securing, the priorities for deliveries transport permits controlled material etc. where such are needed. The Government, will not, however be responsible for the non-availability of such facilities or delay in this behalf and no claims on accounts of such failures or delays shall be allowed by the Government.
The Contractor shall have to make his own arrangement for machinery required for the work. However, such machinery conveniently available with the Department may be spared as the rules in force on recovery of necessary Security Deposit and rent with agreement in the prescribed form. Such an Agreement shall be independent of this contract and the supply of machinery shall not form a ground for any claim or extension of time limit for this work.

14 QUARRIES :-

1. No P.W.D. quarries are available with this Department. The Contractor(s) shall have to arrange the same himself/ themselves to procure the quarry. However necessary assistance without any extra cost to Government will be rendered by the Department for procuring the quarries if required by the Contractor.

2. The quarrying operations shall be carried out by the Contractor with proper equipment such as compressors; Jack-hammers drill bits explosives etc. and sufficient number of workmen shall be employed so as to get required out turn.

3. The Contractor shall carry out the works in the quarries in conformity with all the rules and regulation already laid down or Govt. Any cost incurred by Govt. due to non-compliance of any rules or regulations or due to damages by the Contractor shall be the responsibility of the Contractor may lay that down from time to time.

The Engineer-in-charge or his representative shall be given full facilities by the Contractor for inspection at all times of the working of the quarry, records, maintained the stocks of the explosives and detonators etc. so as to enable him, to check that the working records and storage are all in accordance with the relevant rules. The Engineer-in-charge or his representative shall at any time be allowed to inspect the work buildings, and equipment at the quarters.

4. The Contractor shall maintain at his own cost the books, registers, etc. required to be maintained under the relevant rules and regulations and as directed by the Engineer-in-charge. These books shall be open for inspection all times by the Engineer in charge or his or his representative and the Contractor shall furnish the copies or extracts of books or registers as and when required.

5. All quarrying operations shall be carried out by the Contractor in organised and expeditious manner, systematically and with proper planning. The Contractor shall engage licensed blasters and adopt electric blasting and/or any other approved method which would ensure complete safety to all the men engaged in the quarry and its surroundings. The Contractor shall himself provide suitable magazine and arrange to procure and store explosive etc. as required under the rules at his own cost. The designs and the location of the magazine shall be got approved in advance from the Chief Inspector of Explosives and the rules and regulations in this connection as laid down by the Chief Inspector of Explosives from time to time shall be strictly adhered to by the Contractor. It is generally experienced that it takes time to obtain the necessary license for blasting and license for storage of materials from the concerned authorities. The contractor must therefore take timely advance action for procuring all such licenses so that the work progress may not be hampered.
6. The approacher to the quarrying place from the existing public roads shall have to be arranged by the Contractor at his own cost, and the approaches shall be maintained by the Contractor at his own cost till the work is over.

7. The quarrying operations shall be carried out by the Contractor to the entire satisfaction of the Engineer-in-charge and the development of the quarry shall be made efficiently so as to avoid wastage of stones. Only such stones as are of the required quality shall be used on the work. Any stone which is in the opinion of the Engineer-in-charge, not in accordance with the specifications or of required quality will be rejected at anytime, at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected materials shall be removed to the place shown at the Contractor's cost.

8. Since all stones quarried from Government quarry (if made available) by the Contractor including the excavated over burden are the property of the Govt. no stones or earth shall be supplied by the Contractor to any other agencies or works are allowed to be taken away for any other works. All such surplus quarried materials not required for work under this contract shall be the property of the Govt. and shall be handed over by the Contractor to Government free of cost at quarry site duly heaped at the spots indicated by the Engineer-in-charge. The Contractor will be entitled to the refund of royalty if any, paid by him for such quantity handed over to Govt. for which necessary certificate will be issued by Executive Engineer as per usual procedure. If however, the Government does not require such surplus material, the contractor may be allowed to dispose off or use such material else where with prior written permission of the Engineer-in-charge Leaving off a quarry face or opening of a new quarry face shall be done only on the approval of the Engineer-in-charge.

9. Quarrying permission will have to be directly obtained by the Contractor, form the Collector of the District concerned for which purpose the department will render necessary assistance. All quarry fees, royalty charges, octroi duties, ground rent for stacking materials etc. if any to be paid shall be paid directly by the Contractor as per rules in force. The Contractor will however be entitled to a refund of part of such charges as are admissible under rules as mentioned else where in this contract, after obtaining a certificate from the Engineer-in-charge that the material wee required for use on Government works.

10. The Contractor will be permitted to erect at his own risk and cost at the quarry site if suitable vacant space in Govt. area is available for the purpose, his own structures for stores, offices, etc. at places approved by the Engineer-in-charge. On completion of the work the contractor shall remove all the structure erected by him and restore the site to its original condition.

11. The Contractor shall not use any land in the quarry either for cultivation or for any other purpose except, that required for breaking or stacking or transporting stones.
15 COLLECTION OF MATERIALS :-

i) Where suitable and approved P. W. Deptt's quarries exist, the contractor or piece worker will be allowed if otherwise there is no objection to obtain the materials to the extent required for the work from the quarry. He will be, however, liable to pay compensation. If any damage is caused to the quarry either deliberately or through negligence or for wastage of materials by himself or his staff or labour. The contractor shall pay necessary royalty in advance and claim refund according to rules, if admissible and shall submit detailed accounts of materials from quarries as directed.

ii) Where no suitable P. W. Deptt's quarries exist or when the quantity of the material required cannot be obtained from a P. W. Department quarry, the contractor or piece worker shall make his own arrangements to obtain the material from existing or a new quarry in Government waste land, private land or land belonging to other states or talukas, etc. After opening the quarry but before starting collection the quarry shall be got approved by the Engineer-in-charge or his representatives. The contractor or piece worker shall pay all royalty charges compensation etc. No claims or responsibility on account of any of obstruction caused to execution of the work by difficulties arising out of private owners of land, will be entertained.

iii) The rate in the tender include all incidental charges such as opening of a new quarry, opening out a new portion in an existing quarry, removing top soil and the unsuitable material, dewatering a quarry, cost of blasting powder and fuse, lift lead, repairs to existing cart tracks, making new cart tracks, control charges, Central/State Government or Municipal taxes, Local Boards Cess etc.

iv) The rates in the tender are for the delivery of the approved material on road side properly stacked at the places specified by the Engineer-in-charge and are inclusive of conveyance charges in respect of the leads and lifts. No claims on account of changes in lead will be entertained.

v) No material shall be removed from the land within the road boundary or from the land touching it without the written permission of the Engineer-in-charge or his authorised agent. If any material is unauthorisedly obtained from such places the contractor or piece worker shall have to make good the damages and pay such compensation in addition as may be decided by the Executive Engineer and will have to stop further collection.

vi) Any material that falls on any P.W.D. Road from the cart etc. during conveyance shall be immediately picked up and removed by the contractor or piece worker, failing which it will be got removed departmentally at his cost. No heap shall be left prior to stacking even temporarily on the road surface or in any way so as to cause any obstruction or danger to the traffic. The contractor or the piece worker shall be liable to pay for any claims of compensation etc. arising out of any accident, etc. Any such materials causing obstruction or danger etc. will be got removed departmentally at his cost and no claims for any loss or damage to the material, thus removed will be entertained.
The contractor shall also be responsible for the damage or accident etc. arising out of any material that falls on the road or track, not in charge of the Deptt. and shall attend to any complaint which may be received.

vii) The materials shall not be stacked in place where it is liable to be damaged or lost due to traffic passing over it to be washed away by rain or floods, to be buried under the landslide etc. or slip down an embankment or hill side etc. No claims for any loss due to these and similar causes will be entertained.

viii) Before stacking the materials shall be free from all earth, rubbish vegetable matter and other extraneous substance and in the case of metal, screened to gauge, if so directed when ready. It shall be stacked entirely clear of the road way, on ground which has been cleaned of vegetation and leveled. On high banks, ghat roads etc. where it may not be practicable to stack it entirely clear of the roadway it may be stacked with permission of the Engineer-in-charge on terms in such a way as to cause minimum danger and obstruction to the traffic or as may be directed by him.

ix) The size of the stacks for materials other than rubble shall be 1m x 1m x 0.5m or such other size as may be directed by the Engineer-in-charge and all but one stack in 200m shall be of the same uniform size and shall be uniformly distributed over whole lengths. One stack (at the end) in each furlong may be of length different from the rest in order to adjust total quantity to be required but its width and height will be the same as those of the rest.

x) The Sub Divisional Officer shall supply the contractor with statement showing 200m wise quantities that will be required and the order in which the collection is to be done. No materials in excess of requirements in that 200m shall be stacked. Any excess quantity shall be removed at the expenses of the contractor or piece worker to where it is required before the material in that furlong is finally measured.

xi) In stacking materials the deposition shall commence at the end of the Km farthest from the quarry and be carried continuously to the other end (unless otherwise directed by the executive Engineer). Stacking in one 200m shall be completed before it is started in another, unless directed otherwise, in writing by the Executive Engineer. Measurements of the materials stacked in a 200m will not be recorded until the full quantity required has been stacked unless otherwise authorised by Engineer in writing Collecting and spreading shall not be carried out at the same time in one and the same Km or in two adjoining Km except with the written permission of the Executive Engineer.

xii) Unless otherwise directed, the materials shall be collected in the following order according to availability of space:- 1) Rubble (if included in tender) (2) Metal (3) Soft murum and (4) Hard murum. Hard murum shall be stacked on the side opposite to that on which soft murum has been stacked. Similarly, metal collected for petty repairs shall be stacked on the side opposite to metal for new layer where metal for two layers has to be stacked, as in the case of new roads, the metal for each layer shall be stacked on the opposite sides of the road.
xiii) All road material shall be examined and measured before it is spread. The labour for measurements (and check measurements wherever carried out) shall be supplied by the contractor or piece worker. Immediately after the measurements are recorded the stacks shall be marked by the contractor or piece worker by white wash or otherwise as may be directed by the Executive Engineer to prevent any possibility of the same material being measured and recorded over again and to prevent any unauthorised tampering with the stacks. If the contractor or the piece worker fails to attend the measurements of materials after receiving the notice from the sub-divisional Officer or his subordinate stating date and time of the intention to measure the work, the same shall be measured never the less and no complaint in this respect will be entertained latter on. If the contractor or piece worker fails to supply sufficient labour for the materials required at the time of measurements or check measurements after due notice has been given to him, the expenses incurred on account of employing departmental labour or material etc. shall be charged against his account.

xiv) No deduction will be made for voids.

16) **TEMPORARY QUARTERS AND SITE OFFICE :-**

(i) The contractor shall at his own expense maintain sufficient experienced supervisory staff etc. required for the work and shall make his own arrangement provide housing for them with all necessary arrangements, including fire preventive measures etc. as directed by the Engineer-in-charge.

(ii) The contractor shall provide furnish, maintain and remove on completion of the work, a suitable office on the work site for the use of Executive Engineer’s representative. The covered area exclusive of verandha should not be less than 40 Sqm. It may have bamboo mating walls and asbestos or corrugated iron roof; paved floor should be 45 Cm above ground level. He should provide a basket type latrine, urinals and keep them clean daily. This will be supposed to be included in his rate.

17) **TREASURE-TROVE :-**

In the event of discovery by the contractor or his employees, during the progress of the work of any treasure, fossils, minerals or any other articles of value or interest, the contractor shall give immediate intimation thereof to the Engineer and forthwith hand over to the Engineer such treasure or things which shall be the property of Government.

18) **PATENTED DEVICE :-**

Whenever the contractor desires to use any designed devices, materials or process covered by the letter of patent or copyright, the right for such use shall be secured by suitable legal arrangement and agreement with patent owner and the copy of their agreement shall be filed with the Engineer-in-charge if so desired by the later.
19) **EXPLOSIVES :-**

The contractor shall at his own expense construct and maintain proper magazines if such are required for the storage of explosives for use in connection with the work and such magazine being situated, constructed and maintained in accordance with the Government Rules applicable in that behalf. The contractor shall at his own expenses obtain such license or licensees may be necessary for storing and using explosives. Notwithstanding that the location etc. or storage of explosives are approved by the Engineer, the Government shall not be incurring any responsibility what ever in connection with storage and use of explosives on the site or any accident or occurrence what-so-ever in connection, there with all operations in or for which explosives are employed being at the risk of the contractor and upon his sole responsibility and the contractor hereby gives to Government and an absolute indemnity in respect thereof.

20) **DAMAGE BY FLOODS OR ACCIDENTS :-**

The contractor shall take all precautions against damage by floods or like or from accident etc. No compensation will be allowed to the Contractor on this account or for correcting and repairing any such damage to the work during construction. The contractor shall be liable to make good at his cost any plant or materials belonging to the Government lost or damaged by floods or from any other cause which is in his charge.

21) **POLICE PROTECTION :-**

For the special protection of camp and of the contractor's work the Deptt, will help the contractor as far as possible to arrange for such protection with the concerned authorities, if so required by the contractor writing. The full cost of such protection shall be borne by the contractor.

22) **TRAFFIC REGULATION FOR ROAD WORKS :-**

i) Unless separately provided for in the contract, the Contractor shall have to make all necessary arrangements for regulating traffic, day & night during the period of construction to the entire satisfaction of the Engineer. This includes the construction and maintenance to diversions if necessary. The Contractor shall have to provide necessary caution boards, barricades, flags, lights and watchmen etc. so as to comply with the latest Motor Vehicles rules and regulation and for traffic safety and he shall be responsible for all claims from accidents which may arise due to his negligence whether in regulating the traffic or in stacking materials on the roads, or due to any other reasons.

ii) The contractor shall at all times carry out the work on the road in a manner creating least interference to the flow of traffic, while consistent with the satisfactory execution of the same. For all works involving improvements to the existing road, the contractor shall, in accordance with the directives of the Engineer-in-charge, provide and maintain, during the execution of work a passage for traffic, either along or part of the existing carriage way under improvement or along a temporary diversion constructed close to the road.
iii) TRAFFIC REGULATION FOR BRIDGES AND C.D. WORKS

It is to be clearly understood that wherever work carried out by the contractor for construction of diversion road including earthwork, W.B.M. bituminous surface dressing, R.C.C. pipe drains etc. will be paid for only once if due to flow of traffic, due to floods or due to any other cause, the diversion road and or the R.C.C. drain gets damaged it shall be repaired and maintained by the Contractor in good condition till completion of the whole work at his own expenses.

Traffic safety and control shall be as per Clause No.112.4 M.O.S.T. Specifications for Roads and Bridges (2nd Revision, 1992)

23) SUPERVISION AND INSPECTION OF WORKS AND QUALITY CONTROL :-

23.1 SUPERVISION :-

The contractor shall either himself supervise the execution of the works or shall appoint the competent agent approved by the Engineer-in-charge to act on his behalf. If in the opinion of the Engineer-in-charge, the contractor has himself no sufficient knowledge and experience of receiving instructions or cannot give his full attention to the works, the contractor shall at his own expenses employ as his accredited agent a qualified Engineer approved by the Engineer-in-charge.

Orders given to the contractor's agent shall be considered to have the force as if these had been given to the contractor himself. If the contractor fails to appoint suitable agent as directed by the Engineer-in-charge, the Engineer-in-charge shall have full power to suspend the execution of the work until such date a suitable agent is appointed and the contractor shall be responsible for the delay so caused to the works and the contractor shall not be entitled for any compensation on this behalf.

23.2 INSPECTION :-

The contractor shall inform the Engineer-in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work. The work shall not be considered to have been completed in accordance with the terms of the contract until the Engineer-in-charge shall have certified in writing to that effect. Approval of materials or workmanship or approval of part of the work during the progress of execution shall no bind the Engineer-in-charge or in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion until such alteration and modifications or reconstruction have been effected at the cost of the contractor as shall enable him to certify that the work has been completed to his satisfaction.

The contractor shall provide at his cost necessary ladders and such arrangements as to provide necessary facilities and assistance for proper inspection of all parts of the work at his own cost.
24. **INITIAL MEASUREMENTS FOR RECORD :-**

Where for proper measurement of the work it is necessary to have an initial set of levels or other measurements taken, the same as recorded in the authorised field book or measurement book of Government by the Engineer or his authorised representative will be signed by the contractor who will be entitled to have a true copy of the same made at his own cost. Any failure on the part of the contractor to get such levels etc. recorded before starting the work will render him liable to accept the decision of the Engineer as to the basis of taking measurement. Like-wise the contractor will not cover any work which will render its subsequent measurements difficult or impossible without first getting the same jointly measured by himself and the authorised representative of the Executive Engineer. The record of such measurements on the Government side will be signed by the Contractor and he will be entitled to have a true copy of the same made at his cost.

25. **SAMPLES AND TESTING OF MATERIALS :-**

(i) All materials to be used on work shall be got approved in advance from the Engineer-in-charge and shall pass the test and/or analysis required by him which will be:-

(a) As specified in the specification for the items concerned and/or
(b) Red Book
(c) As specified by the Indian Road Congress Standard Specification and code of practice for Roads and Bridges 4th revision section 900.
(d) ISI Specifications (whichever and wherever applicable) or
(e) Quality Control for road work.
(f) Such recognised specifications acceptable to Engineer-in-charge as equivalent there to or in absence of such authorised specification.
(g) Such requirement test and/ or analysis as may be specified by the Engineer-in-charge in order of precedence given above.

**Additional Condition for Material Testing**

1. It is mandatory on the part of contractor to carry out all the required tests of various construction materials as mentioned in the Schedule “B” of the Tender.

2. If the Contractor fails to submit required Test results of the various construction materials as mentioned in the items of Schedule-B he will be liable to deposit the amount at penal rate of five times of the amount of Particulars test which he has not carried out. Contractor will be informed by the Engineer-in-charge by letter. On receipt of letter, contractor will have to either deposit the said amount or to carry out the required test within 10 days. If he again failed to carry out the required tests in stipulated time limit, the said tests will be carried out by the department and total expenditure incurred on the testing charges plus five times amount of testing charges will be recovered from the contractor’s bill.

3. As this recovery is only due to the negligence on the part of contractor to carry our work as per tender conditions and Executive Engineer’s decision will be final and binding on the contractor be way of appeal, arbitration or in the court of law.
(ii) The contractor shall at his risk and cost make all arrangements and/or shall provide for all such facilities as the Engineer-in-charge may require for collecting, preparing required number of samples for tests or for analysis at such time and to such place or places as may be directed by the Engineer and bear all charges & cost of testing. Testing charges shall be reimbursed subject to condition under this Clause 25(VII) (a) (h). Such samples shall also be deposited with the Engineer-in-charge.

(iii) The contractor shall if and when required, submit at his cost the samples of materials to be tested or analysed and if, so directed shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and the materials, finally accepted by the Engineer-in-charge.

(iv) The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of the materials.

(v) The contractor or his authorised representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However the results of all the tests carried out in the departmental laboratory in the presence or absence of the contractor or his authorised representative will be binding on the contractor.

(vi) The contractor shall at his own cost set up laboratory to carry out the routine tests of materials which are to be used on the work. 70% tests shall have to be carried out in his field laboratory and 30% in Quality Control Laboratory of the Department. In case where there is no Field Laboratory 100% tests shall be carried out in the nearest Quality Control Laboratory of the Department. In respect of other construction material which is not mentioned in the following table 50% tests should be carried out in nearest quality control laboratory of the Department.

(vii) In case of materials supplied by the Government, if the contractor demands, certain testing, the charges thereof shall be paid by contractor if the testing results are satisfactory and by the Department if the same are not satisfactory.

(viii) a) The test shall be carried out in accordance with the Clause "Samples & Testing of Materials" given under "Additional General Conditions & Specifications" of this tender document.

b) The testing of materials shall be carried out as per the frequency specified by the Superintending Engineer, Vigilance & Quality Control Circle, Pune and shall be the responsibility of contractor.

c) The material required for testing shall be sent by the contractor to the specified Laboratory at his own risk and cost.

d) In case the desired results are not obtained during testing or the material is rejected due to unsatisfactory results, the testing charges shall not be paid to the contractor.
e) It shall be obligatory on contractor to produce the test results along with receipt of payment made to the Laboratory, for releasing payment towards Testing Charges.

f) In case additional testing of material is found necessary due to change in source, no separate payment shall be made and it shall be the entire responsibility of contractor.

g) Testing charges mentioned in the tender item are in view of the rates published by the Superintending Engineer, Vigilance & Quality Control Circle, Pune vide their letter No.DSR-2011-12/2071/2011 Dated: 22-09-2011 and revised till the submission of offer to this tender.

No difference shall be payable to the contractor, in case testing charges are revised / increased by the Laboratory in future.

h) Material-Testing shall be carried out as directed by Engineer in charge.
**ADDITIONAL CONDITION FOR MATERIAL TESTING**

1. It is mandatory on the part of Contractor to carry out all the required tests of various construction materials as mentioned in Schedule - 'B' of the Tender.

2. If the contractor fails to submit required Test Results of the various construction materials as mentioned in the items of Schedule -'B', he will be liable to deposit the amount at penal rate of five times of the amount of particular test which he has not carried out. Contractor will be informed by the Engineer-in-charge by letter. On receipt of letter, contractor will have to either deposit the said amount or to carry out the required test within 10 days. If he again failed to carry out the required tests in stipulated time limit, the said tests will be carried out by the department and total expenditure incurred on the testing charges plus five times amount of testing charges will be recovered from the Contractor's bill.

3. As this recovery is only due to the negligence on the part of contractor to carry out work as per Tender Conditions and Executive Engineer's decision will be final and binding on the Contractor and it cannot be challenged by the Contractor by way of Appeal, Arbitration or in the Court of Law.

**MORT&H Specifications**

In case of recovery, Contractor will be charged for the following:

1. For any laboratory test, contractor will be charged Rs. 500 for every 10 days slip.
2. For any laboratory test, contractor will be charged Rs. 700 for every 15 days slip.
3. For any laboratory test, contractor will be charged Rs. 1000 for every 30 days slip.

In addition, contractor will be charged an amount at penal rate of five times of the amount of particular test which he has not carried out. Contractor will be informed by the Engineer-in-charge by letter. On receipt of letter, contractor will have to either deposit the said amount or to carry out the required test within 10 days. If he again failed to carry out the required tests in stipulated time limit, the said tests will be carried out by the department and total expenditure incurred on the testing charges plus five times amount of testing charges will be recovered from the Contractor's bill.

**Additional Notes**

- Contractor is required to carry out all the required tests of various construction materials as mentioned in Schedule - 'B' of the Tender.
- If the contractor fails to submit required Test Results of the various construction materials, he will be liable to deposit the amount at penal rate of five times of the amount of particular test.
- Contractor will be informed by the Engineer-in-charge by letter. On receipt of letter, contractor will have to either deposit the said amount or to carry out the required test within 10 days.
- If the contractor again fails to carry out the required tests in stipulated time limit, the said tests will be carried out by the department and total expenditure incurred on the testing charges plus five times amount of testing charges will be recovered from the Contractor's bill.

**Signature of contractor**

**No. of Corrections**

**Executive Engineer**
व) ज्या कामावर श्रेष्ठ प्रयोगशाला नसेल, त्या कामासहजीता बांधकाम साहित्याच्या १०० टको चाचण्या दक्षता व गुण नियंत्रण मंडळाच्या प्रयोगशालेतून करण्यात यावयात.

क) निविदा प्रपत्रत विशेष अट (Special Condition) अंतर्गत बांधकाम साहित्याच्या चाचण्यांची वारंचारिता (Frequency) पाठवण्यात अट व अट समाविष्ट करावी, या अटसोबत एक परिसोध देखून, त्या परिसोधात सवं साहित्याच्या चाचण्यांची किमान वारंचारिता (Frequency) नमुद करण्यात यावी. ही वारंचारिता नमुद करताना खानोपलाय पातळ अत्यंत काळजी.

i) निविदाताल ज्या बाबीसाठी MORT&H Specifications चा संदर्भ देणेत आला आहे. त्या बाबीमधील साहित्याच्या चाचण्यासाठी MORT&H Specifications मध्ये नमुद केलेली प्रश्लित किमान वारंचारिता देखून यावी.

ii) निविदाताल ज्या बाबीसाठी MORT&H Specifications चा संदर्भ देणेत आलेला आहे त्या बाबीमधील साहित्याच्या चाचण्यासाठी P.W.D. Specifications मध्ये नमुद केलेली प्रश्लित किमान वारंचारिता देखून यावी.

iii) ज्या बाबीसाठी / साहित्यासाठी वरील (i) व (ii) मध्ये नमुद विनिर्देशानुसार वारंचारिता विलेली नाही, अशा बाबीसाठी संबंधित I.S. Codes चा वापर करण्यात यावा, त्या प्रमाणे किमान वारंचारिता उल्लेख करण्यात यावा.

iv) सवं चाचण्यासाठी किमान वारंचारिता बाह्यनियनाठी प्रत्येक नाही.

3) वरीलप्रमाणे अटसोबत समावेश निविदा प्रपत्रत झाला आहे हे पाठवण्याची जबाबदारी सर्वस्वती प्राप्त निविदा प्रत्येक मंजूर करणायया अधिकारी-यावर राहील.

सोबत — परिक्षेत्र अ सही/-
(पी. ब्री. रणभोरे)
उप सचिव (र.म.) महाराष्ट्र शासन

प्रत :-
वरिष्ठ स्वीक सहायक, सचिव (बांधकाम), सा. बां. विभाग, मंत्रालय, मुंबई,
स्वीक सहायक, सचिव (रस्ते), सा. बां. विभाग, मंत्रालय, मुंबई,
मुख्य अभियंता, व सह सचिव, सार्वजनिक बांधकाम विभाग मुंबई/ पुणे / नाशिक /
औरंगाबाद / नागपूर / अमरावती
मुख्य अभियंता, विशेष प्रकल्प (सा. बां.), विभाग, मुंबई,
मुख्य अभियंता, राष्ट्रीय महामार्ग (सा. बां.), विभाग, कोकण भवन, नवी मुंबई,
सर्व अर्थशास्त्र अभियंते, सार्वजनिक बांधकाम मंडळे,
सर्व कार्यकारी अधिकारी, सार्वजनिक बांधकाम विभाग,
सर्व नागरिक अधिकारी, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई,
कार्यासन अधिकारी, संग-६, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई.
## QUALITY CONTROL TESTS

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<td>ii) Flakiness index &amp; Elongation index.</td>
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<td>Wet Mix Macadam</td>
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<td>Sr. No.</td>
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<td>Dense Bituminous Macadam/Semi dense Bituminous concrete/ Bituminous concrete</td>
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26 **CHANGE OF CEMENT CONTENT etc. :-**

The tendered rates for any item involving the use of cement, shall apply to the quantity of cement specified for the mix for that item in the specifications. If for any reasons except those required for compensating the deficiencies, in the components, the cement content and properties are altered by the Engineer (Engineer-in-charge) at any time or from time to time the tendered rates for that particular item and quantity or quantities, shall be duly enhanced or reduced only to account for the additions or reduction in cost of the cement content from that laid down in the specification at the rates specified in the Schedule 'A' of the contract plus 10% to cover all other incidental charges whatsoever likewise if any additives compounds water proofing material etc. are ordered by the Engineer to be added to the mortar or concrete, no extra rate shall be payable for this change which shall be carried out as per directions of the Engineer-in-charge.

27 **CEMENT CONCRETE :-**

27.1 **General :-**

a) All concrete shall be controlled concrete and machine mixed, unless otherwise directed by Engineer-in-charge for controlled or high grade concrete the grading of aggregates shall be got "approved from the Engineer.

b) The correct proportions and the total amount of water for mix will be determined by means of preliminary tests and shall be got approved by the Engineer. However such approval does not relieve the Contractor from his responsibility regarding the minimum works strength requirements work test shall be taken in accordance with relevant codes and specifications. All proportioning of aggregates shall be done by weight if so ordered by the Engineer.

c) All mixing shall be done by mechanical means in approved mixers. The Engineer may at his discretion allow in writing hand mixing of concrete for minor items where small quantities are involved but in that case contractor shall increase the cement content of the mixture by 10% without any extra cost.

d) The form work used shall be made preferably of steel or with lining of steel Wooden shutters may be allowed at the discretion of the Engineer e.g. lintels, small slabs and beams coping etc.

e) The concrete shall be mechanically vibrated for proper compaction by the method approved by the Engineer.

f) The concrete shall be cured only by a sweet potable water for full 21 days after the time of the period specified in the detailed specification or as may be directed by Engineer-in-charge.
27.2 FORM WORK AND STAGING FOR BRIDGE STRUCTURES

1) For bridge structure, forms for concrete shall be constructed of mild steel plates or marine plywood and be of substantial and rigid construction true to shape and dimensions shown on the drawings. Where metal forms are used all bolts and rivets shall be counter sunk and well ground provide a smooth plain surface.

2) Forms shall be mortar tight and shall be sufficiently rigid by the use of ties and bracing to prevent any displacement or sagging between supports. They shall be strong enough to withstand pressure, ramming and vibration, without deflection from the prescribed line occurring during and after placing and concrete and shall be tight enough to prevent any appreciable loss of concrete during vibration. Screw Jacks or had wood wedges where required shall be provided to make up any settlement in the form work before or during the placing of concrete.

3) Schedule camber shall be provided in horizontal numbers of structures, specially in long pans to counteract the effects of any deflection. The form work shall be so fixed to provide for such camber.

4) Forms shall be so constructed as to be removal in sections in the desired sequence, without damaging the surface of concrete or disturbing other sections.

28 MISCELLANEOUS :-

28.1 Rate shall be inclusive of S. T. General tax and other taxes etc.

28.2 For providing electric wiring or water lines etc. recesses shall be provided if necessary through walls, slabs beams etc. & latter on refilled up with bricks or stone chipping cement mortar without any extra cost.

28.3 In case it becomes necessary for the due fulfillment for the Contractor to occupy land outside Deptt. limits, the contractor will have to make his own arrangements with the land owners to pay such rents if any are payable as mutually agreed between them. The Department will afford the Contractor all the reasonable assistance to enable him to obtain Govt. land for such purpose on usual terms and conditions as per rules of Government, if such land is available.

28.4 The special provision in detailed specifications or wording of any item shall gain precedence over corresponding contradictory provision (if any) in the standard specifications or P. W. D. Hand Book where reference to such specifications is given without reproducing the details in contract.

28.5 Suitable separating barricades and enclosures shall be provided to separate material brought by contractor and material issued by Government to contractor under schedule "A". Same applies for the material obtained from different sources of supply.
28.6 The stacking and storage of construction material at site shall be in such a manner as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the Contractor to protect the material against atmospheric actions, fire and other hazards. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likely-hood of subsidence of soil; such heavy materials shall be stored on approved platforms.

28.7 For Road and Bridge works the contractor shall in addition to the specification cited here, comply with requirements of relevant I.R.C. Code practice.

28.8 The contractor shall be responsible for making good the damages done to the existing property during construction by his men.

28.9 If it is found necessary from safety point of view to test any part of the structure, the test shall be carried out by the contractor with the help of the Deptt. at his own cost.

28.10 Defective work is liable to be rejected any stage. The contractor on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for rectification.

28.11 In the schedule "B" the work has been divided into sections but notwithstanding this, every part of it shall be deemed supplementary to and complementary of every other part.

28.12 General directions or detailed description of work, materials and items coverage of rates given in the specification are not necessarily repeated in the Bill of Quantities. Reference is however drawn to the appropriate section clause(s) of the General specifications in accordance with which the work is to be carried out.

28.13 In the absence of specific direction to the contrary, the rates and prices inserted in the items are to be considered as the full inclusive rates and prices for the finished work described there under and are to cover all labour, materials, wastage, temporary work, plant overhead charges and profits as well as the general liabilities, obligations and risks arising out of the General conditions of contract.

28.14 The quantities set down against the item in the schedule "B1 are only estimated quantities of each kind of work included in the Contract and are not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not be exceeded.

28.15 All measurements will be made in accordance with the methods indicated in the specification and read in conjunction with the General conditions of Contract.

28.16 The details shown on drawings and all other information pertaining to the work shall be treated as indicative and provisional only and are liable to variation as found necessary while preparing working drawing which will be supplied by the Government during execution. The contractor shall not on account of such variation be entitled to any increase over the ones quoted in the tender which are on quantity basis.
28.17 The recoveries if any due from contractor will be effected as arrears of land revenue through the Collector of the District.

28.18 Clause 101 to 107 of Specifications of Road and Bridges work adhered herewith will be applicable to works as per Schedule "B" unless specified otherwise in the detailed specifications of the relevant items.

28.19 All materials used in the construction shall conform to the requirement of Specification Clause under Section 1000 “Materials for Structures” of Specification of Road and Bridge Work, M.O.S.T. New Delhi, August 2001 Edition.

28.20 Extraneous materials and steps to minimize dust nuisance during construction shall be as per clause 111 of M.O.S.T. & H. Fourth Revision, August 2001 Edition.

PROTECTION OF UNDERGROUND TELEPHONE CABLE AND AERIAL TELEPHONE WIRES AND POLES, TRANSMISSION TOWERS, ELECTRICAL CABLES AND WATER SUPPLY LINES:

During the execution of work it is likely that the contractor may meet with telephone cable, electrical cables, water supply lines, etc. it will, therefore, be the responsibility of the contractor to protect them carefully. All such cases should be brought to the notice of the Engineer-in-charge by the contractor and also to the concerned Department. Any damage what-so-ever done to these cables and pipelines by the contractor shall be made good by him at his cost.

29 MEDICAL AND SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR

(a) The contractor shall provide and adequate supply of portable water for the use of labourers on work and in Camps.

(b) The contractor shall construct trench or semi permanent latrines for use of Labourers, Separate latrines shall be provided for men and women.

(c) The contractor shall build sufficient number of huts on a suitable plot of land for use of the Labourers according to the following specifications.

(i) Huts of Bamboos and Grass may be constructed.

(ii) A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with trees shall be chosen wherever it is suitable. The neighborhood of tank, jungle, grass or woods should be particularly avoided; camps should not be established close to large cuttings of earth work.

(iii) The lines of huts shall have open spaces of at least ten yards between rows, when a good natural site cannot be procured, particular attention should be given to the drainage.

(iv) There should be no over crowding. Floor space at the rate of 30 Sq. Ft. per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.

(v) The contractor must find his own land and if he wants Government land he should apply for it and pay assessment for it, if made available by Government.
(vi) The contractor shall construct a sufficient number of bathing places. Washing places should also be provided for the purpose of washing clothes.

(vii) The contractor shall make sufficient arrangements for draining away the surface and sullage water as well as water from the bathing and washing places and shall dispose off this waste water in such way as not to cause any nuisance.

(d) The contractor shall engage a medical officer with a traveling dispensary for a Camp containing 500 or more persons if there is no Govt. or other private dispensary situated within 8 Kilometers from the Camp In case of emergency the contractor shall arrange his cost for transport for quick medical help to his sick worker.

(e) The Contractor shall provide the necessary staff for effecting a satisfactory drainage system and cleanliness of the camp to the satisfaction of the Engineer. At least one sweeper per 200 persons should be engaged.

(f) The assistant Director of Public Health shall be consulted before opening a labour camp and his instruction on matters such as water supply, sanitary conveniences the camp site accommodation and food supply shall be followed by the Contractor.

(g) The contractor shall make arrangements for all antimalaria-measures to be provided for the labour employed on the work. The antimalaria measure shall be provided as directed by the Assistant Director of Public Health.

(h) In addition to above all provisions of the relevant labour act pertaining to basic amenities to be provided to the labourer shall be applicable which will be arranged by the contractor.

30 SAFETY CODE :-

Suitable Scaffolds shall be provided for workmen for all works that cannot safely be done form the ground or from solid construction except such short period work as can be done safely from ladders. When ladder is used and extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given and inclination not steeper than 1 to 4 (1 horizontal and 4 vertical).

Scaffolding or staging more than 3.25 m. above the ground or floors, swing or suspended from an overhead support or erected with stationary supports, shall have a guard rail properly attached, bolted braced and otherwise assured at least 1 m. high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
Working platform, gangways, and stairways shall be so constructed that they do not sag unduly or is more than 3.25 m. above ground level or floor level, it shall be closely boarded have adequate width and suitably fenced as described in 2 above.

Every opening in floor of the building or in a working platform shall be provided with suitable protection to prevent fall of persons or materials by providing suitable fencing or railing with minimum height of 1 metre.

Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m in length, width between side rails in a rung ladder shall in no case be less than 30 Cms. For ladder upto including 3 in. in length. For longer ladders this width shall be increased at least 6 mm. For each additional 30 Cms. of length Uniform step spacing shall not exceed 30 Cms.

Adequate precautions shall be taken to prevent danger from electrical equipments. No materials on any of the site shall be stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect public from accidents and shall be bound to bear expenses of defense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precaution and to pay any damages and costs which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor, to be paid to compromise any claim by any such person.

**EXCAVATION AND TRENCHING :-**

All trenches, 1.5 meters or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1 meter above surface of the ground sides of a trench which is 1.5 meters or more in depth shall be stepped back to give suitable slope, or security held by timber bracing so as to avoid the danger of sides collapsing. Excavation materials shall not be placed within 1.3 metres of edge of trench or half depth of trench whichever is more. Cutting shall be done from top to bottom under no circumstances shall undermining or undercutting be done.

**DEMOLITION :-**

1. Before any demolition work is commenced and also during the process of the work :-
   a) All roads and open areas adjacent to the work site shall either be closed or suitable projected.
   b) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by operator shall remain electrically charged.
   c) All practical steps shall be taken to prevent danger to person employed, from risk or fire or explosion or hooding. No floor, roof or other part of a building shall be so overloaded with debris of materials as to render it unsafe.
2. All necessary personal safety equipments as considered adequate by the Engineer-in-charge shall be available for use of persons employed on the site and maintained in a condition suitable for immediate use and the contractor shall take adequate step to ensure proper use of equipment by those concerned.

(a) Workers employed on mixing asphaltic materials cement and lime mortars concrete shall be provided with protective footwear and protective goggles.

(b) Those engaged in handling any materials which is injurious to eyes shall be provided with protective goggles.

(c) Those engaged in welding works shall be provided with welder's protective eye shields.

(d) Stone breakers shall be provided with protection goggles and protective clothing and seated at sufficiently safe intervals.

(e) When workers are employed in sewers and manholes which are in use the contractor shall ensure that manhole covers are opened and manholes are ventilated at least for an hour before workers are allowed to get into them. Manholes opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.

(f) The contractor shall not employ, men below the age of 18 and women on the work of painting, with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions shall be taken.
   (i) No paint containing lead or lead product shall be used except in the form of paste or ready made paint.
   (ii) Suitable face masks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
   (iii) Overalls shall be supplied by the contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

(g) When work is done near any place where there is risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

3. Use of hoisting machines and shackies including the attachment, anchorage supports shall confirm to the following :-

(a) (i) These shall be of good mechanical construction, round materials and adequate strength and free from potent defects and shall be kept in good repair and in good working order.

(ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and of adequate strength and free from potent defects.
(b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding.

(c) In case of every hoisting machine and of every chain ring hook, shackle owner and pulley block used in hoisting or lowering or as means of suspension safe working load shall be ascertained by adequate means. Every hoisting machines and all gear referred to above shall be plainly marked with safe working loads.

In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

(d) In case of departmental machines safe working load shall be notified by the Engineer-in-charge. As regards contractor’s machines the contractor shall notify safe working load of each machine to the Engineer-in-charge whenever, he brings it to site of work and get it verified by the Engineer-in-charge.

Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with such means as will reduce to the minimum risk of accidental descent of load. Adequate precaution shall be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced, when workers are employed. On electrical installations which are already energised insulating materials wearing approved such as gloves sleeves and coats as may be necessary shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

All scaffolds, ladders, and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.

These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. Persons responsible ensuring compliance with the safety code shall be named therein by the contractor.

i) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to inspection by the Engineer-in-charge or his representatives and the inspecting officers.

ii) Failure to comply with the provision hereunder shall make the contractor liable to pay to the Department as penalty an amount not exceeding Rs. 50/- for each default and decision of the Engineer-in-charge shall be final and binding.

Not with standing the above conditions 1 to 14 the contractor is not exempted from the operation of any other Act rules in force.
31 **SCOPE OF RATES FOR DIFFERENT ITEMS OF WORK :-**

For item rate contracts, the contract unit rates for different items of work shall be payment in full for completing the work to the requirements of the specifications including full compensation for all the operations detailed in the relevant sections of these specifications under "Rates". In the absence of any directions to the contrary, the rates are to be considered as the full inclusive rate for finished work covering all labour materials, wastage, temporary work, plant, equipment, overhead charges and profit as well as the general liabilities, obligations and risks arising out of the general conditions of contract.

The item rates quoted by the contractor shall, unless otherwise specified, also include compliance with/supply of the following :-

i) General works such as setting out, clearance of site before setting out and clearance of works after completion.

ii) A detailed programme for the construction and completion of the works (using CPM/PERT techniques) giving, in addition to construction activities, detailed network activities for the submission and approval of materials, procurement of critical materials and equipment, fabrication of special products/equipments and their installations and testing and for all activities of the Employer that are likely to effect the progress of work, etc. including updating of all such activities on the basis of the decisions taken at the periodic site review meeting or as directed by the Engineer.

iii) Samples of various materials proposed to be used on the work for conducting tests thereon as required as per the provisions of the contract.

iv) Design of mixes as per the relevant clauses of the specifications giving proportions of ingredients, sources of aggregates and binder along with accompanying trial mixes as per the relevant clauses of these specifications to be submitted to the Engineer for his approval before use of the works;

v) Detailed design calculations and drawing for all Temporary Works (such as formwork, staging, centering, specialised constructional handling and launching equipment and the like);

vi) Detailed drawings for templates, support and end anchorage, details for prestressing cable profiles, bar bending and cutting schedules for reinforcement, material lists for fabrication of structural steel etc.

vii) Mill test reports for all mild and high tensils steel and cast steel as per the relevant provisions of the specifications.

viii) Testing of various finished items and materials including bitumen, cement, concrete, bearings as required under these specifications and furnishing test reports/certificates;

ix) Inspections Reports in respect of formwork, staging, reinforcement and other items of work as per the relevant specification;
x) Any other data which may be required as per these specifications or the conditions of contract or any other annexures /schedules forming part of the contract.

xi) Any other item of work which is not specifically provided in the Bill of Quantities but which is necessary for complying with the provisions of the contract; and

xii) All temporary works, formwork and false works.

Portions of road works beyond the limits and or any other work may be got constructed by the employer directly through other agencies. Accordingly, other agencies employed by the Employer may be working in the vicinity of the work being executed by the contractor.

The Contractor shall liaise with such agencies and adjust his construction programme for the completion of the work accordingly and no claim or compensation due to any reason whatsoever will be entertained on this account The Employer will be indemnified by the contractor for any claims from other agencies on this account.

32 PAYMENTS -

a) Running Bills :-
Two payments in a month will be granted by the Engineer-in-charge if the progress is satisfactory. Contractor should submit bills to the Engineer-in-charge in appropriate forms.

(i) The payment of Carpet shall be made only be made only after completion of seal coat.

(ii) 10% amount of premix carpet and seal coat shall be withheld from running bills till the completion of side shoulders.

b) Final Bill :-
The contractor should submit final bill within one month after completion of the work and the same will be paid within 3 month if it is in order. Disputed item and claims if any shall be excluded from the final bill and settled separately later on.

33 HANDING OVER OF WORK :-

All the work and materials before finally taken over by Government will be the entire liability of the Contractor for guarding, maintaining and making good any damages of any magnitude. Interim payments made for such work will not alter this position. The handing over by the Contractor and taking over by the Executive Engineer or his authorised representative will be always in writing of which copies will go to the Executive Engineer or his authorised representative and the contractor, it is however understood that before taking over such work Government will not put it into regular use as distinct from casual or incidental one, except as specifically mentioned elsewhere in this contract, or as mutually agreed to.
34 **CLAIMS :**

Bill for extra work or for any claim shall be paid separately apart from the interim bill for the main work. The payment of bill for the main work shall not be withheld for want of decision on the extras or claims not covered in the appendices.

Claims for extra work shall be registered within 30 days of occurrence of the event. However, bill for these claims including supporting data/details may be submitted subsequently.

35 **MAINTENANCE :**

a. The Contractor shall maintain the finished surface of the road for a period mentioned in clause no.20 after the completion of work without any extra cost to Government irrespective of the designs, standards and specifications and the actual traffic etc. The Contractor shall get the pot holes filled up with asphalt mix materials and keep the road surface in good condition throughout the year. 5% amount of the total work done shall be recovered from running account bills and shall be withheld for period mentioned in clause no.20 from the date of actual completion of work as maintenance charges of maintaining and keeping the road in good condition. This 5% amount withheld towards maintenance charges shall be allowed to be replaced with bank guarantee or other recognised forms at intermediate stage, if so desired in writing. This maintenance charges shall be in addition to security deposit.

b. On completion of the work in all respects, necessary certificates will be issued by the concerned Executive Engineer and the defects liability period will be counted from the date of issue of such certificates.

c. All damages during execution shall be made good by the contractor at his cost. He will be responsible for any damages to the road surface including B.T. surface in rainy seasons and during construction and guaranteed maintenance period and no separate payment will be made for restoring such damages.

"Any defects noticed in finished black topped surface such as pot holes, damaged etc. within a period mentioned in clause no.20 after completion of work (Including Monsoon) will have to be repaired by the contractor at his own cost. 5% (Five percent) of the amount payable under B.T. items in addition to the security deposit will not be released till the defect liability period mentioned in clause no.20 is over. The contractors will examine existing road its camber, soil conditions, existing crust etc. before quoting for Tender. No claims on this account will be accepted. The contractor will have to maintain the road surface in good condition till defect liability period is over.

d. Defective work is liable to be rejected at any stage. The Contractor on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for such rectification.
e. It will be responsibility of the contracting Agency to maintain total road length under work portion of this contract Agreement in good condition from the date of issue of work orders, till completion of defect liability period as per clause –20, and this shall be treated as part of total scope of this contract Agreement. In case the contractor fails to maintain road length properly including rectification of the defect pointed out by the department within a period of 7 days from the date of a written notice by the Engineer-in-charge rectification / repairs to such defects will be carried out by the department at contractor’s risk and cost.

36) In super session to whatever has been defined in clause 10 and 11 of B-1 agreement form elsewhere in the N.I.T. documents the contractor shall submit detail measurements of work done along with each monthly bill and final bill. The Engineer in charge shall effect necessary checking of the measurement and then effect payment within 10 days of submission of measurement if possible. If it is proved that the measurements are mindfully and swollen incorrect/ irrelevant the Engineer in charge shall deduct 25% of the actual payment due to wards compaction for avoidable labour enforced.

**WORKING DRAWING :-**
The contractor shall submit two sets of working drawings on the base of which the measurements as aforesaid shall be based.

37) **TECHNICAL COMPLETION REPORT :-**
The contractor shall submit technical submission report along with his final bill which shall include.

i) Detail measurements As aforesaid.

ii) Working drawing As aforesaid.

iii) Details of materials brought on site and consumed in the work which shall also indicates standard consumption and deviation if any with reason.

iv) Test results of all materials used in work with an abstract of total tests carried out and required as per frequency of tests as laid down in the relevant as per P.W.D. Specifications and Quality Control Laboratory of the department.

v) Roughometer survey data as down in acceptance criteria.

vi) Design calculation / Job mix formula etc.


38. **QUALITY ASSURANCE AND MAINTENANCE (FOR WORKS COSTING MORE THAN 100 LAKHS) :-**

1. Ensure the specified quality of work which will also include necessary surveys, temporary works, etc. the Contractor shall prepare a quality assurance plan and get the same approved from the Engineer-in-charge within one month from the date of work order. For this the Contractor shall submit an organisation chart of his technical personnel to be deployed on the work along with their qualification, job descriptions defining the functions of reporting, supervising, inspecting and approving. The Contractor shall also submit a list of tools, equipment and the machinery and instrumentation which he proposes to use for the construction and for testing in the field and/or in the laboratory and monitoring. The Contractor shall modify/supplement

Signature of contractor                  No. of Corrections                  Executive Engineer
the organisation chart and the list of machinery, equipment, etc. as per the directions of the Superintending Engineer and shall deploy the personnel and equipment on the field as per the approved chart and list respectively.

The Contractor shall submit written method statements detailing his exact proposals of execution of the work in accordance with the specification. He will have to get these approved from the Engineer-in-charge. The quality of the work shall be properly documented through certificate, records, checklists and logbooks of results, etc. Such records shall be compiled from the beginning of the work and be continuously updated and supplemented and this will be the responsibility of the Contractor. The forms should be got approved from the Executive Engineer-in-charge.

2. Where the work is to be done on lumpsum basis on Contractor's design the Contractor shall also prepare and submit a maintenance manual giving procedure for maintenance, with the periodicity of maintenance works including inspections, tools and equipment to be used, means of accessibility for all parts of the structure. He shall also include in the manual the specifications for maintenance work that would be appropriate for his design and technique of construction. This manual shall be submitted within the contract period.

39. PHOTOGRAPHS :-

So as to observe the progress of work at different stages of execution of works the contractor shall take out coloured photographs at 3 stages i.e.
1) Before execution,
2) During execution,
3) After completion of work

Contractor shall take out atleast 15 photographs of different location of each subworks at each stage. The photographs will be of post card size same shall be submitted along with the running bill in duplicate.

No extra cost shall be paid to the contractor on this account.
ADDITIONAL SPECIAL CONDITIONS FOR HOTMIX ASPHALTIC WORKS

1.i) **Clause No. 106 of Ministry’s Specification (4th Revision)**
This clause stipulates certain conditions relating to choice and use of equipment which have relevance to production of quality work. These are:

a) The contractor shall be required to give a trial run of the equipment for establishing capability to achieve the laid down specifications and tolerances to the satisfaction of the Engineer before commencement of work.

b) All equipment provided should be of proven efficiency and shall be operated and maintained at all times in a manner acceptable to the Engineer.

c) No equipment and personnel will be removed from the site without the permission of the Engineer.

ii) **Clause No. 901 of Ministry Specification (4th Revision 2001)**

a) The responsibility for the quality of the entire construction work is on the contractor. For this purpose he is required to have his own independent and adequate set up.

b) The Engineer for satisfying himself about the quality of the materials and work will also have tests conducted by quality controlled units or by any other agency, generally to the frequency set out in the specification. For test to be done by the Engineer, the contractor is to render all necessary co-operation and assistance including the provision of labour assistance in packing and dispatching samples etc.

c) For work of embankment, subgrade and pavement, construction of subsequent layer of the same other material over the finished layer shall be done only after obtaining approval from the Engineer.

d) The contractor shall be responsible for rectifying / replacing any work falling short of quality requirements as directed by the Engineer.

iii) **Clauses in the conditions of contract:**

a) All material and workmanship shall be of the respective type described in the contract and in accordance with the Engineer’s instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture of fabrication or on the site. All samples shall be supplied the contractor.

b) No work is to be covered up or put out of view without the approval of the Engineer for his examination and measurements.

c) During the progress of the works, the Engineer shall have the power to order the removal from the site of any unsuitable material, substitution of proper and suitable material and the removal and proper erection not withstanding any previous test or interim payment, therefore, and of any work which in respect of materials or workmanship is not in the opinion of the Engineer in accordance with the contract.

2) **Guidelines on Quality control operations:**
The onus of achieving quality of work will be on the contractor who will take actions as stipulated in section 900 of Ministry's specifications for Road and Bridge works (4th Revision 2001)
Ministry's Specifications for Road and Bridge works (4th Revision 2001)

Ministry's specifications for Road and Bridge works (4th Revision 2001) will form part of contract documents and the contractor will be legally bound to the various stipulations made therein unless and otherwise specifically relaxed or waived wholly or partly through a special clause in the contract document.

a) Supervising control and data acquisition for Bituminous item & W.B.M (SCADA)

Engineer In charge shall allocate unique identification number to the work of this contract. For all bituminous items under this contract, the contractor shall provide web-based Supervisory Control and Data Acquisition (SCADA) arrangements for the following:

(A) DRUM-MIX PLANT
   (i) Temperature of metal before mixing.
   (ii) Temperature of bitumen before mixing.
   (iii) Temperature of mix material.

(B) MIX TRANSPORTATION
   (i) Vehicle tracking system (VTS) for all vehicles transporting bituminous mix.

(C) ROLLERS / COMPACTORS
   (i) Temperature of mix during compaction.
   (ii) Vehicle tracking to monitor movement of Tipper/ Trucks, Roller / Compactor and so as to give approximate number of passes of Roller / Compactor.

(E) GIS MAP
Displaying locations of Hot mix Plants, Tippers used for hot mix material transportation, Roller and Sprayer on GIS map.

(F) Communicate the Data which is beyond the set parameters by SMS and e-mail to the representative of Engineer In charge for all above A B C & E.

b) THE OFFER OF THE CONTRACTOR SHALL INCLUDE:
   (1) The cost of procuring, establishing, running, operating & maintaining SCADA including all Censors, Vehicle Tracking System (VTS) and any other instrumentation, automation required to acquire the desired data, mentioned at (A), (B), (C), (E), (F), above.

   (2) Web connectivity to all locations where data is being acquired, transmitted, processed, stored and retrieved with minimum speed of 1 MPBS and 100 % availability. The contractor shall provide the web application in such a manner that it shall first update the above data in real time on PWD’s works monitoring e-governance web application automatically.

   (3) Web-based application including Computer Software, Hardware etc. to transmit, process, store and retrieve the data in the forms and formats as prescribed by the Engineer In charge.
(4) Arrangement for security of data, Disaster recovery arrangements shall be as per I.T. Industry practice, during the construction period and upto defect liability period (DLP). Handing over the data on the Web Server after DLP in Electronic form as instructed by Engineer Incharge.

(5) Calibration of all SCADA related attachments /accessories as per the specification:- Web based application to monitor the schedule of Calibration of all SCADA related attachment/accessories. The invalidity of calibration shall lead to non-acceptance of work or measurement and the Contractor shall not be paid for such non-accepted work or measurements.

(6) Submission of printed and authenticated reports to the Engineer Incharge as and when required.

(7) Point (1) to (6) above shall be arranged and maintained during contract period and defect liability period.

(8) Cost includes rectification, fine tuning, corrections, additions & alterations to the system to the satisfaction of Engineer Incharge.

(9) All data generated as per this special condition of contract shall be the property of PWD.

c) The Contractor shall make all necessary arrangement required under Clause 42.1 & 42.2 above (Supervising control and data acquisition for Bituminous and WBM item) well in advance before starting of the related items of work. All necessary arrangements so made shall be offered for inspection to Engineer Incharge one month prior to the start of the related items of work. Changes if any, after his inspection suggested by the Engineer Incharge shall be carried out at no extra cost and within the period of Three days. A fresh request for inspection of Engineer Incharge after such rectifications shall be requested by the Contractor and final approval to the SCADA arrangements as specified in Clause-19 shall be obtained.

**Contractor's Facilities**

According to the contract (see para 1.3 above) the contractor is responsible for the quality of the entire construction work, and for this purpose he is required have his own independent and adequate set up. To meet this requirement.

a) The contractor shall set up his own laboratory at location(s) approved by the Engineer. The laboratory shall be equipped with modern and efficient equipment with sufficient standbys suitable to carry out the tests prescribed for different materials and work according to the specifications, the list of equipment to be procured and the facilities to be provided shall be got approved by the Engineer. The equipment shall be maintained in a workable condition to the satisfaction of the Engineer.
b) Sampling and testing procedures shall be in accordance with the relevant standards of BIS (Previously called ISI) or (IRC). Frequency of testing shall be as laid down in the Ministry's Specifications for Road and Bridge work (2nd Revision 1992) In the absence of relevant Indian standards sampling and testing procedures shall be as approved by the Engineer.

c) The laboratory should be manned by qualified Materials Engineers assisted by Materials inspector / Technicians, and the set up should be got approved by the Engineer.

d) The contractor should prepare printed proforma for recording readings and results of each type of test, after getting the formats of the performance approved from the Engineer He should keep a daily record of all the tests conducted by him. Two copies of the test results should be submitted to the Engineer for this examination and approval, of which one copy will be return to the contractor for being kept at site of work.

e) The Materials Engineer of the contractor should keep close liaisons with the quality control Unit of the Engineer and keep later informed of the sampling and testing programme so that the Engineer's representative could be present during this activity, if considered necessary.

3) **Day to Day Quality Control Operations**

The day to day controls to be exercised by the contractor and the Engineer are enumerated in the below paragraphs.

**Alignment and Level Control.**

a) The Contractor should locate the center-line of the road from the pegs, pillars or preference points fixed during the location survey and form the information furnished in the Contract drawings. Any discrepancy between the reference points on the ground and those on the drawings should immediately be brought to the notice of the Engineer for reconciliation.

b) Based on the approved center-line the Contractor should set up batter pegs (to delineate the limits of embankment/cutting and cleaning stakes to delineate limit of cleaning and grubbing and have these got checked and approved by the Engineer.

c) The contractor should check the reduced levels of bench marks setup along the alignment. Any discrepancy in the reduced levels of those at site and as indicated in the drawings should immediately be brought to the notice of the Engineer of reconciliation, the contractor should re-establish those bench marks which are found missing at site, and should establish additional bench marks as needed ensuring effective level control.

d) The contractor shall be responsible for the true and proper setting out of the works in relation to the original survey points lines and levels of reference given by Engineer in writing if at any time during the progress of the works, any error shall appear or arise in the position, levels dimensions or alignment any part of the works, the contractor on being required to do so by the Engineer, shall at his own cost rectify the
error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer.

e) The contractor shall carefully protect and prepare all bench marks, reference pillars and pegs used in setting out the works till final take over by the Engineer.

**Natural ground for embankment construction/cut formation and their compaction**

a) Atterberg limits, in situ dry density and CBR of the material at ground/out formation should be determined and got approved by the Engineer. Any unsuitable material shall be removed and replace by better material as ordered by the Engineer.

b) The Engineer's Quality Control Unit(s) shall have independent test checks on the quality and compaction of the natural ground/cut formation

**Embankment Construction**

a) All borrow areas shall be got approved by the Engineer based on results of tests for atterberg limits proctor/modified proctor density, CBR and soil classification.

b) Layer thickness and in situ density shall be checked and got approved by the Engineer before proceeding to the next layer.

**Sub Grade**

a) Specific borrow areas having soil satisfying the requirements of specifications and specified strength criteria shall be identified for use in subgrade and got approved by the Engineer based on tests on borrow material for proctor modified proctor density and CBR.

b) In situ density and CBR of the constructed subgrade shall be checked and got approved by the Engineer before proceedings on with the next pavement layer.

c) The soil used in actual construction of subgrade shall be remoulded at density referred in sub-para (b) above at placement moisture content and checked for 4 days soaked and unsoaked CBRA set of 3 specimens shall be collected from each 3000 M$^3$ area of the subgrade i.e. top of 0.5 m of embankment for CBR test.

d) In case of any appreciable variation of inbuilt subgrade characteristics form the designed ones, the pavement design shall be reviewed to match the inbuilt characteristics of the subgrade.

**Sub-base**

a) The source of supply of material shall be inspected, tested and got approved by the Engineer before any Material is delivered to the site of work(s).

b) Job-mix formula falling within the specified limits where applicable, shall be got approved by the Engineer based on test results thereof.

c) Samples of materials from the laid sub-base shall be tested for gradation proctor density, PL and CBR
d) Field compaction shall be checked and got approved by the Engineer before proceeding with the work on the next pavement layer.
e) In case of any appreciable variation of inbuilt sub base characteristics from the designed ones, the pavement design shall be reviewed to match the inbuilt characteristics of the sub base.

**Granular Base Course**
a) For graded type of granular material, the job mix formula falling within the specified grading limits should be got approved by the Engineer.
b) Testing of aggregate brought to site of works for gradation and AIV should be done.
c) Testing of filter material for WBM for gradation L and PI shall be done.
d) Field compaction control should be exercised for density and by other sensory checks such as observation of movement of layer under compaction plact, sinking /crushing of a piece of aggregate placed before a moving roller complete removal of roller marks etc.

**Shoulders**
a) Checking for the quality of shoulder materials including gradation shall be done.
b) Field compaction shall be checked at site on the compacted layer.
c) Checking for the cross fall built shall be done.

**Bituminous Construction General**
a) Manufacturers test certificate for quality of bitumen will be acceptable to the Engineer. However, where the quality is in doubt, the Engineer may call for tests to be conducted by the Contractor for verification.
b) The base on which bituminous courses are to be laid must be dry and free of dust and other delirious matters.
c) Mineral aggregates to be used should be checked for their specification requirement and got approved by the Engineer.

**Bituminous sprayed work**
a) Temperature of binder in the boiler and rate of spray at site shall be checked. Spraying shall be uniform and shall be carried out with the help of either self peopled or bitumen pressure sprayer with self heating arrangements and spraying nozzles arrangements.
b) Rate and uniformity of spread of chipping should be checked and controlled.
c) Adequate embedment of the chippings by rolling shall be ensured.

**Hotmixed And Hot Laid Bituminous Constructions**
a) Job mix formula (JMF) satisfying specification requirements should be worked out based on laboratory tests and got approved by the Engineer. The Engineer will have independent test- made before approving the JMF.
b) The plant should be checked for capability produce mix conforming to the JMF necessary, trial stretch should be laid and checked approximately.
c) Control should be exercised on temperature of binder in the boiler, aggregate in the dryer and mix at the time of laying and rolling.
d) Tests of stability flow, unit weight etc. of mix collected from the discharge point of the plant extraction test for binder content and aggregate gradation should be performed to check on the quality of mix discharged from the plant.
e) Thickness and density of the compacted mix should be checked by taking core samples.

**ACCEPTANCE CRITERIA**

In addition to the stipulation in the specification of relevant items, the finished surface shall be checked with Rougho-meter for roughness values. The finished surface shall have a roughness value of not more than 2000 mm/Km, for Bituminous concrete surface and 3000 mm/Km, for bituminous premix carpet surface, when measured in accordance with M.O.S.T circular No. RW/ NH 111/8/10/64 dated 19/5/1984.

Subsequent readings should be taken within 4-6 months after opening of the road to traffic or the defects liability period whichever is earlier, he roughness value during the second measurements should be judged against the following standards.

1) **Bituminous concrete 2500 mm/ Km.**
2) **Premix carpet. 3500 / Km.**

It shall be the responsibly of the contractor to make all the required arrangements and get this survey done in the presence of and under the guidance of the Engineer-in-charge. The survey data shall be submitted to the Engineer-in-charge for his persual who shall decide further action to be taken depending on survey results.

**Culverts and other Appurtenances**

a) Lines, levels and quality of the foundation should be checked.

b) In case of pipe culverts
   i) The quality of the pipes should be checked. For BIS (formerly ISI) marked pipes, manufacturer’s certificate is acceptable, for other, the contractor shall demonstrate the strength capability of pipes through theists either at the place of manufacture of at site of works.
   ii) The quality of materials used for pipe bedding should be checked. Invert level, smoothness of the pipeline and proper sealing of joints should be checked prior to back filling.

c) **In case of cement concrete works**
   i) Besides manufacturers test certificate for quality of cement, at least on set of physical and chemical tests should be conducted for each source of supply for verification. Where the quality is in doubt or where the cement had been stored for long periods or in improper conditions the Engineer shall call for testing the cement at more frequent intervals.
   ii) Job mix formula worked out based on trials carried out in the Contractor’s laboratory should be got approved by the Engineer.
   iii) The mineral aggregates should be tested for their properties. Water to be used for mixing should be tested for chemical impurities.
   iv) Checking of stability and sturdiness of form work.
   v)
vi) Ensuring that the crucial equipment like mixers and vibrators are in working order before start of work,

vi) Control of water cement ratio.

vii) Control of workability and time elapsed between mixing and placing of concrete.

viii) Control on compaction and finishing.

ix) Tests on cube samples at 7 and 28 days.

x) Check on provisions for adequate curing.

d) In case of masonry work, control should be exercised on the quality of the material (e.g. stone, brick sand, cement etc.) as also on mortar proportions.

e) For RCC work, quality of steel in each batch may be approved on the basis of test certificate. The reinforcement layout should be checked for conformity with approved drawings and bar bending schedules. All laps should be checked for conformity with the specification. The reinforcement should be free of oil and loose rust scale and should be properly tied with binding wire. The size and spacing of the bars as also the cover should be checked for correctness.

**Pavement Courses - General Controls**

a) The base on which the pavement layer is to be placed should be checked or levels and regularity and should be in a condition to receive the pavement layer.

b) Each layer should be checked for thickness, levels, crossfall (camber) regularity and strength before next layer is permitted to be laid.

**BITUMINOUS CONSTRUCTION GENERAL**

a) Manufacture’s test certificate for quality of bitumen shall be submitted to the Engineer. However, the procedure laid down in the Government Circular (Marathi) No.Misc/2005/CR-187/NH-2 dated 8.10.2007 shall be strictly followed.

b) The base on which bituminous courses are to be laid must be dry and free of dust and other delirious matters.

c) Mineral aggregates to be used should be checked for their specifications requirements and got approved by the Engineer.

**Spreading and Compaction**

**Spreading of 40 mm metal** - 40 mm size metal shall be spread evenly at the specified rate 9 cum per 100 Square meter of area so as to form a layer even the width of road with correct camber / super elevation as required. Any foreign, matter, organic matter, dust grass, edge batten etc. any regulations shall be made good by adding aggregates in case of depressions and removing aggregates from high spots.

**Compaction of 40 mm size metal**

The surface of 40 mm metal layer after bringing it to necessary grades and sections shall be rolled with the use of 8 to 10 tones power roller. Rolling shall commence from the edges and progress towards center longitudinally except on super elevated portion it shall progress from the lower to upper edge parallel to the center line of pavement. When the roller has passed over the whole area any high spots or depressions which become apparent shall be corrected by removing or adding aggregates. The rolling shall then be continued till the entire surface has been rolled.
to desired compaction such that there is not crushing of aggregates and all roller marks have been eliminated. Each pass of roller shall uniformly overlap not less than one third of the track made in the preceding pass.

**Application of Bitumen :-**

Bitumen of I.S. grade S.35 supplied for the work shall be heated to temperature of 177 Celsius to 191 Celsius (350 F to 375 F) in a bitumen boiler and temperature shall be maintained at the time of actual application. The not bitumen shall be applied through a pressure sprayer on the road surface uniformly at the rate of 200 Kg/100 Sqm. The road surface shall be divided into suitable rectangles marked by chalk so as to ensure correct rate of application of the bitumen.

**Key Aggregates :-** On completion of bitumen application 12 mm size key aggregate shall spread immediately at a uniform rate of 1.8 Cubic metre/1.2 Cum per 100 square metre area when entire surface is in not condition. Brooms shall be used to ensure even distribution of I aggregate.

**Final Compaction :-** Immediately after spraying of bitumen and spreading of key aggregates the surface shall be rolled with a power roller to obtain full compaction and to force the bindage of key aggregates into the interstices of the course aggregate. The rolling shall continue till the asphalt surface hardens and key aggregates stop moving under power roller.

The surface finish shall confirm to requirements of clause 902 of specification for Road and Bridges by Ministry of Surface Transport, (copy enclosed) Quality Control Test and their frequencies shall be as per table below.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Test</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Quality of Binder</td>
<td>Two samples per lot to be subjected to all of some best as directed by the Engineer.</td>
</tr>
<tr>
<td>2.</td>
<td>Aggregate Impact</td>
<td>One test per 200 cubic meter of aggregate.</td>
</tr>
<tr>
<td>3.</td>
<td>Flakiness Index and Elongation Index</td>
<td>One test per 200 cubic meter of aggregates.</td>
</tr>
<tr>
<td>4.</td>
<td>Stripping value</td>
<td>Initially one set of three representative specimen for each source of supply subsequently when warranted by changes in the quality of aggregate.</td>
</tr>
<tr>
<td>5.</td>
<td>Water absorption of aggregates.</td>
<td>Initially one set of three representative specimen for each source of supply subsequently when warranted by changes in the quality of aggregate.</td>
</tr>
<tr>
<td>6.</td>
<td>Aggregate grading</td>
<td>One test per 100 cubic meter of aggregate.</td>
</tr>
<tr>
<td>7.</td>
<td>Temperature of binder</td>
<td>At regular clause intervals.</td>
</tr>
<tr>
<td>8.</td>
<td>Rate of spread of</td>
<td>One test per 500 square meter of area.</td>
</tr>
</tbody>
</table>

**ITEM TO INCLUDE :**

1) Diversions unless separately provided in the tender.
2) Preparing the road surface
3) Applying tack coat on existing B.T. or picking the existing W.B.M surface
4) Supplying spreading and compaction of 40 mm & 20 mm aggregate.
5) Supplying, heating & spraying bitumen
6) Supplying, spreading & compaction of 12 mm size chips
7) All labour, material, including bitumen & aggregate use of tools, plants and equipment’s for completing the item satisfactory.

**MODE OF MEASUREMENT**

The contract rate shall be for 100 Sq. m. The measurement shall be for the width of road as executed, limiting it to the width specified or as ordered by the Engineer and the length measured along the center line. The measurement of dimensions shall be recorded correct upto 2 places of decimals of meter and the area worked out correct upto one place of decimal of a square meter.

**EXTRACT FROM SPECIFICATIONS FOR ROADS AND BRIDGES WORK BY M.O.S.T. :**

902 Control of alignment, level, and surface regularity

902.1 General:
All works performed shall conform to the lines, grades, cross sections and dimensions shown on the drawings or as directed by the Engineer, subject to the permitted tolerance described hereinafter.

902.2 Horizontal alignment:
Horizontal alignments shall be reckoned with respect to the centerline of the carriage way as shown on the drawings. The edge of the carriage way as constructed shall be correct within a tolerance of ±10 mm there from. The corresponding tolerance for edges of the roadway and lower layers of pavement shall be ± 25 mm.

902.3 Sub-grade Levels:
The levels of the Sub-grade and different pavement courses as constructed, shall not vary from those calculated with reference to the longitudinal and cross profile of the road shown on the drawings or as directed by the engineer beyond the tolerances +6 mm or 0.6 mm. provided However, that the negative tolerance for wearing course, if the thickness of the former is thereby reduces by more than 6 mm for fixable pavements and 5 mm for concrete pavements.

For checking compliance with the above requirement for Sub-grade, sub base and base course, measurements of the surface levels shall be taken on a grid of points places at 6.25 m. longitudinally and 3.5 m transversely. For any 10 consecutive measurements taken longitudinally or transversely, not more than one measurement shall be permitted to exceed the tolerance as above, this one measurement being not in excess of 5 mm above the permitted tolerance. For checking compliance with the above requirement for bituminous wearing courses and concrete pavements measurements of the surface level shall be taken on a grid of points spaced at 6.25m. along the length and at 0.5 m from the edges and at the center of the pavement. If
any length of pavement, compliance shall be deemed to the met for final road surface only if the tolerance given above is satisfied for any point on the surface.

902.4 Sub-grade Levels:
The Longitudinal profile shall be checked with a 3 meter long straight edge/moving straight -edge as desired by the Engineer at the middle of each traffic lane a line parallel to the center line of the road. The maximum permitted number of surface irregularities shall be as per Table 900-2.

Table 900-2 Maximum permitted number of surface Irregularities.

<table>
<thead>
<tr>
<th>Irregularity</th>
<th>Surface of carriage way and paved shoulders</th>
<th>Surfaces of laybys, services areas and all bituminous base course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4 mm</td>
<td>7 mm</td>
</tr>
<tr>
<td>Length (m)</td>
<td>300</td>
<td>90</td>
</tr>
<tr>
<td>National Highways/Expressways</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Roads of lower Category</td>
<td>40</td>
<td>18</td>
</tr>
</tbody>
</table>

Category of each section of road as described in the contract.

The maximum allowable difference between the road surface and underside of a 3 m straight edge when placed parallel with, or at right angles to the center line of the road at points decided by the Engineer shall be:

- For pavement surface (bituminous and cement concrete) : 3 mm.
- For bituminous base courses : 6 mm.
- For granular Sub-base courses : 8 mm.
- For Sub-base under concrete pavements : 10 mm.

902.5 Rectification:
Where the surface regularity of sub-grade and the various pavement courses fall outside the specified tolerances, the contractor shall be liable to rectify these in the manner described below and to the satisfaction of the Engineer.

Bituminous Construction:
For bituminous other than wearing course, where the surface is low, the deficiency shall be corrected by adding fresh material over a suitable tack coat if needed and re-compaction to satisfaction. Where the surface is high, the full depth of the layer shall be removed and replaced with the fresh material and compacted to specifications.

Rd 33 - Picking the road surface including sectioning complete

Rd 33.1 General - The item provides and sectioning of the road surface for receiving the new metal surface.

Rd 33.2 Road Diversion - If the traffic cannot be allowed to pass over the roadside shoulders during picking, spreading and compacting operations, diversions should be taken out and maintained as specified under item No. BR.1. Where specified the work may be done in half width provided proper section is obtained and suitable arrangement for traffic is made if allowed to pass over the berms or a lane of the road. Watchmen and signaiers shall be employed as directed by the Engineer, Red Lights shall be hang during night time to indicate the danger. If the picked up road surface cannot be completely surfaced and rolled at the end of the day red light shall be put up at each end to warn the traffic.

Rd 33.3 Picking - All the caked mud, sluish, animal droppings, vegetation and all other rubbish accumulated on the road surface shall be removed. Where the section of the road surface is good the road surface shall be picked lightly only, to loosen the surface stones. Where section is uneven picking shall be done a little deeper to enable the sectioning to be done to the required shape with the picked up material. The picking shall always be ahead of the spreading of metal and compaction by about 100 meters. The edges of the picking shall be truly in a line or curve as the case may be. This can be achieved by trying to nails driven on the road edge and ranging for a sufficiently long length.

The picked up surface shall be sectioned to the required grade and camber, super elevation or transition section. Template shall be used to obtain correct and uniform camber super elevation or transition section as the case may be.

The road surface may be watered by the contractor for easier picking without claiming extra for the same.

The junctions of the picked and non-picked surfaces shall be diagonal.

Rd 33.4 Item to include.
1) Picking,
2) Watering if required
3) Sectioning and grinding.
4) Diversions including barricading waning signals, lights etc. unless separately provided in the tender,
5) All labour, materials, use of tools. etc. for carrying out for works satisfactorily.
Rd 33.5 Mode of measurement and payment - The contract rate shall be one Sq. meter of surface picked sectioned.

The area picked shall be worked out in Sq. meters correct upto a Sq. meter. The width shall be limited to the width specified or as ordered by the Engineer. The length shall be measured along the center line of the road. The dimensions shall be recorded correct up to one decimal of a meter increased width on curves shall be measured.

Rd 41.1 General
The item provides for the supply of stone aggregate of the specified type and size at the roadside including obtaining the stones of the specified quality from approved sources, crushing them in mechanical crushers, conveying to the road side with all leads and lifts stacking in regular heaps as specified hereinafter uniformly along the road side.

Rd 41.2 Quarries:
Stones of approved type for crushing aggregate shall be obtained from quarries as specified in section no. Rd. 19.2

Rd 41.3 Stone aggregates:
Rd 41.3.1 Quality:
The aggregates shall be obtained by crushing approved stones of specified type in a mechanical crusher and shall be clean, strong, tough, dense, durable, close grained and free from soft, decayed and weathered portions and from coating of dust, dirt or other objectionable matter. They shall preferably have good hydrophobic characteristics. They shall generally satisfy the following physical requirements:

<table>
<thead>
<tr>
<th>Test</th>
<th>For light or medium traffic</th>
<th>For heavy traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles abrasion test, percent fines maximum</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Aggregate crushing test, percent, fines maximum</td>
<td>23</td>
<td>17</td>
</tr>
<tr>
<td>Water absorption by weight after 24 hours immersion, percent, not more than</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Tests shall be carried out according to I.S. 383-1970
Tests considered necessary shall be carried out in an approved laboratory when the Engineer. Tests considered necessary shall be carried out in an approved laboratory when the Engineer considers the quality to be doubtful or there is a dispute about the quality. If the results are satisfactory, the cost of tests shall be borne by the Department and if unsatisfactory by the contractor.
Rd 41.3.2 SIZE-SIZE OF THE METAL AMD CHIPS SHALL BE AS UNDER:

<table>
<thead>
<tr>
<th>Standard Size</th>
<th>Wholly passing through square mesh of internal dimension</th>
<th>Wholly retained on square mesh of internal dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 mm (about 1.5&quot;)</td>
<td>50 mm (about 2&quot;)</td>
<td>25 mm (about 1&quot;)</td>
</tr>
<tr>
<td>22 mm (about 1&quot;)</td>
<td>40 mm (about 1.5&quot;)</td>
<td>20 mm (about 0.75&quot;)</td>
</tr>
<tr>
<td>20 mm (about 0.75&quot;)</td>
<td>25 mm (about 1&quot;)</td>
<td>12 mm (about 0.50&quot;)</td>
</tr>
<tr>
<td>2 mm (about 0.50&quot;)</td>
<td>20 mm (about 0.75&quot;)</td>
<td>10 mm (about 0.75&quot;)</td>
</tr>
<tr>
<td>10 mm (about 0.75&quot;)</td>
<td>12 mm (about 0.50&quot;)</td>
<td>6 mm (about 0.25&quot;)</td>
</tr>
<tr>
<td>6 mm (about 0.25&quot;)</td>
<td>10 mm (about 0.75&quot;)</td>
<td>5 mm (about 3/16&quot;)</td>
</tr>
</tbody>
</table>

Note: Not more than 20% of any sample shall exceed in its greatest dimension, standard size plus 25 mm, for 40 mm, standard size, standard size plus 12 mm. For 25 mm, 20 mm and 12 mm standard sizes and standard size plus 6 mm. For 10 mm standard sizes.

The pieces shall be roughly cubical in shape and more or less of uniform size with sharp edges for interlocking. Rounded, flaky, thin, elongated pieces shall not be accepted. Before collection, samples of the metal and chips shall be got approved for quality, size and shape by the Engineer who will keep them in his office for reference. They shall be completely dry at the time of use.

Rd 41.3.3 Conveyance
According to specification no. Rd 19.3.3

Rd 41.3.4 Stocking
According to specification no Rd 22.3.4 wherever a mixture of aggregates of two or more standard sizes is specified for the work, each size of aggregates shall be stacked separately and entirely clear of the carriage way and where possible clear of the shoulders also. They shall be stacked in such a manner as to prevent mixture, deterioration or contamination.

Rd. 41.4 Special points
According to specification no. Rd.19.4

Rd. 41.5 Item to include
Crushing aggregates to the specified sizes from approved rubble and other items included in specification no. Rd.19.5

Rd. 41.6 Mode of measurement and payment
According to specification no. Rd.20.6
ADDITIONAL SPECIFICATION FOR BITUMINOUS MACADAM

1. The grade for aggregates to be used shall be as per table-500-4 on page No. the Bitumen content shall be as mentioned in the specification.

2. For compaction 8 to 10 tonnes roller can also be used.

3. The contractor shall prepare the marshal mould of bituminous mix as per required grading and test the same for laboratory density. 95% of marshal density of bituminous macadam after laying and compaction shall be the criteria for acceptance of degree of compaction of the laid mix. The Laboratory density of the mix shall be done for every change in source of aggregated and each grade asphalt to be used on work. The frequency of testing shall not be less than one test for every 500 square metre of the laid ratio.

4. The tack coat shall be-to be provided by at least manually to be used hand operated pressure spar with the required, heating arrangement.

5. Initial ground level of interval of 10 meter on strength reaches and at interval of 5 meter at one curve at minimum 5, point on cross section as directed by Engineer-in-Charge shall be taken in presence of contractor or his authorised representative, these intervals are subjected to modifications as decided by Engineer-in-charge or his authorised representative. All levels pertaining to work in field books must be sighed by contractor or his authorised representative.
ADDITIONAL SPECIFICATIONS FOR
25 MILIMETER THICK SEMIDENCE CARPET

1. The grading are of aggregate shall be used as per table 500-20 on page No. of the specifications.
2. The tack coat shall be provided by out least manually towed hand operated pressure the sparer with the required arrangement.
3. The required field density shall be 98% of the marshal density within 3 days of traffic after final compaction of the laid mix by approved compacting machinery.
4. For condition of not mix plant, please refer page No.____

WORK METHODOLOGY FOR SEAL COAT.

Liquid seal coat shall be executed as per clause No.513 of Specification for Road and Bridge works of M.O.R.T & H Specification 2001 and latest reprint amendments. Preparation of surface to receive seal coat shall be as per 513.3.3.2 and in one go 200 M. only.

Construction of seal coat shall be as per clause 513.3.3.3 and shall be for 200m. length prepared as above. The preparation of surface for seal coat and construction of seal coat as per Clause 513.3.3.2 and 513.3.3.3 respectively as mentioned above shall be done in 200 m. in one go and the cycle of during in 200m. shall be reated throughout the day and at the end of the working day any fraction left measuring less than 200 metres shall be done separately.

PROGRESSIVE METHODOLOGY

The work methodology as described above shall then be followed for next 200 metres and thus progressively for entire length of road.

MODE OF INSPECTION AND MEASUREMENT

The Deputy Engineer shall remain present and personally supervise cent percent (100%) length executed during his tenure.

PAYMENTS

a) Two payments in a month will be granted by the Engineer-in-charge if the progress is satisfactory Contractor should submit to the Engineer-in-charge in appropriate forms.
   i) The payments of carpet shall be made only after completion of seal coat.
   ii) 10% amount of premix carpet and seal coat shall be withheld from running account bills till the completion of side shoulders.
SUPPLEMENTS SPECIFICATION OF SCHEDULE "B"
(To be referred with schedule "B" and its specifications)

1. The specification Nos. mentioned in columns No. 3 are as per number given in the specification book of Ministry of Surface Transport edition 1995.

2. Any other specification or specifications not mentioned there in but which in the opinion of the Engineer-in-charge appear applicable during the execution of the particular Items will have to strictly be adhered to, at no extra cost.

3. As regards Tender item No. should be noted that the plant shall not be started earlier than 7.30 a.m. and the last load should not be delivered earlier than 8.00 a.m. and the load should be so delivered so as to complete laying acid compaction operations at site as per specification not later than 6.00 p.m. positively. Also the decanning of bouzer at plant should not be done earlier than 7.30 a.m. and later than 17.30 p.m. Both these items should be done in the presence of the Deputy Engineer-in-charge his authorised representative at plant site.

4. As regards tender item No. spraying of asphalt by bouzer should not be done earlier than 8.00 a.m. and later than 17.30 p.m. and this should be done in the presence of Deputy Engineer-in-charge or his authorised representatives.

5. As regards with tender item No. proper of levels, temperature, quality, quantity, consistency etc. should be maintained jointly by the contractor or his authorised representative and Deputy Engineer-in-charge or his authorised representative.

6. The Quarry considered for this work are within reasonable leads. Only the approved rubble / metal / murum or rubble required for crusher from this quarry will be permitted to be used. If the contractor desires to bring the materials from any other quarry, he should obtain specific approval for the use of material from that quarry from Engineer-in-charge. Unless the approved to the source of supply of material from proposed quarry is obtained by the contractor, the department will not be responsible for the payment of work done. The contractor should also ensure that on other unapproved material is used or mixed in the loads delivered on site. The quality control tests as per specifications should be carried out at plants as well as at site of work and the contractor or his authorised representative should sign the test results on each working day.
CHECKLIST FOR INSPECTION OF DRUM MIX PLANT

GENERAL
1. State and Works Division Concerned : __________________________
2. Date of Inspection : __________________________
3. Plant Inspected : __________________________
4. Plant Location : __________________________
5. Work specification and reference : __________________________
6. Maximum one way lead : __________________________
7. Contractor and Owner of the Plant : __________________________
8. Reputation of Plant Manufacturer : __________________________

TECHNICAL
1. Basic Necessity - Plant should be of proven design and reputed make. (Efficiency of Drum Mix Plant in producing bituminous mix of desired quality depends on appropriate Drum Design, proper design and location of lifting flights, burner performance, air/gas flow through the drum, Bitumen spray characteristics, RPM and slope of drum and various other factors.)
2. Make and Model of Plant : __________________________
3. Capacity Ratings (TPH) : __________________________
4. Manufacturer’s Sr. No. and Year of Manufacture : __________________________
5. Number and Specification of
   Paver : __________________________
   Loader : __________________________
   Tipper : __________________________
6. Make and rating of Diesel Generating set : __________________________
7. COLD AGGREGATE FEEDER
   7.1 Reputation of Plant Manufacturer : Yes / No
   7.2 Bin Design
   7.2.1 Self-relieving bin walls (steep slope of about 60° and 67°) : Yes / No
   7.2.2 Self-relieving bottom opening of bins : Yes / No
   7.2.3 Easily adjustable bin gates : Yes / No
   7.2.4 Capacity of each Bin : Yes / No
      (Should be at least 3 times dead load capacity of mixer)
   7.2.5 Width of Bins : Yes / No
      (To be compatible with the width of loader bucket)
   7.3 Low level and No flow warning device of bins : Yes / No
   7.4 Belt conveyers driven by synchronized variable speed motors below each bin : Yes / No
   7.5 Vibrating arrangement with bin for fines : Yes / No
   7.6 Electronic weigh bridge with load cell : Yes / No
   7.7 Type of Vibratory Screening Unit : Single Deck / Four Deck
      (Four Deck necessary if aggregates supplied are not properly graded)
8. **DRYING AND MIXING UNIT**
8.1 Type of Drying and Mixing Unit
8.1.1 Drying and Mixing Unit
   a) Single Drum/Double Drum/Coaxial Double Barrel
   b) Parallel flow/counter flow (of aggregate and Hot gas)
   c) Burner Location Normal / Imbeded

8.2 **MATERIAL**
( Drum shell, Drum flights etc. that are subjected to high thermal stress and wear and tear should be made of wear and tear resistant steel of adequate strength and robust structure. Only good make can ensure appropriate quality material.)
8.3 Length and diameter of drum : ________________
8.4 RPM and inclination of drum : ________________
(Retention time in the drum is one of the factors affecting removal of internal moisture)
8.5 Design and arrangement of Flights : ________________
(Specially designed and arranged lifting crate a dense veil of aggregate in front of burner flame, uniformly heats the aggregate and shields the asphalt from radiant heat of burner flame.)

8.6 **BURNER**
8.6.1 Burner is fully automatic and high-pressure jet type Yes / No
8.6.2 Pre-heating arrangement for burner fuel Yes / No
8.6.3 Drive to dryer drum, burner pump and blower are interlocked Yes / No
(so that burner can be lit only when dryer drum is rotating )
8.6.4 Drive to dryer drum and burner fuel pump are provided with auto on/off control system (to prevent explosion)

9. **EXHAUST SYSTEM**
9.1 Exhaust Fan capacity : ________________
9.2 Suction head for Exhaust variable Yes / No
9.3 Exhaust gas temperature recording device Yes / No
9.4 Exhaust draft variation is automatic Yes / No
9.5 Exhaust damper Yes / No
( Damper incorporated in the exhaust stack, above the fan housing, opens or closes to intermittently adjust the flow of exhaust gases as the production rate of plant changes.)

10. **MINERAL FILLER SUPPLY SYSTEM**
10.1 Separate silo adequate size for storage of mineral filter Yes / No
10.2 Facility for adding lime or cement to the silo to supplement the collected dust filler material Yes / No
10.3 Weighing and feeding of the filler into the drier Yes / No
10.4 Feeder is interlocked with aggregate and bitumen feed devices Yes / No

11. **ASPHALT SYSTEM**
11.1 Asphalt tank (tank should be of adequate size, rugged construction and well insulated) : ________________
11.1.1 Heating Method Direct Fired / Hot oil heater
11.1.2 Thermostatic control of heat input possible Yes / No
(to control the burner to maintain desired asphalt temperature)
11.1.3 Temperature meter outside the tank available Yes / No
11.2 Asphalt supply and metering pumps synchronized with Yes / No
aggregate flow rate
  (DC motor drive for pumps should be synchronized with dry aggregate
  flow rate no produce mixed conforming to design mix at all loads)
11.3 Hot Oil System - Hot Oil tank with burner Yes / No
  (Hot oil pump, hot oil jacketing of asphalt pump, pipelines and mix storage silo)

12. HOT MIX DELIVERY SYSTEM
12.1 Load out or Drag Conveyer/ Bucket elevator : ________________
  i) Belt Scraper Yes / No
  (Fines in the system has a tendency to stick to the belt and separate out thus
  upsetting the mix design, Belt scraper made of hard rubberized material
  should be provided to avoid this.)
  ii) Covered to reduce heat loss Yes / No
12.2 HOT MIX DELIVERY HOPPER
  (Continues free fall of material from the hot mix conveyer leads
  to segregation. Hence material is stored in delivery hopper and
  allowed to fall in mass in batches)

13. HOT MIX STORAGE
13.1 Surgesilo Yes / No
  (For short term storage of hot mix should be well insulated and
  bin gate should be controlled from control cabin)
13.1.1 Capacity : ________________
13.1.2 Silo (for long term storage) Yes / No
13.2.1 Capacity
13.2.2 Binloading indicator Yes / No
  (Indicates when the bin is full)
13.2.3 Closing of bin gates before emptying Yes / No
13.2.4 Mix Temperature recording device Yes / No

14. AUTOMATIC CONTROL PANEL
Fully Functional Automatic Control Panel available Yes / No
  (Fully automatic and centralized control cabin for displaying and
  recording weight of aggregate, exhaust gas temperature, etc. and also
  for controlling through programmable microprocessor devices, any of
  the drive motors independently and with interlocking relays.)

15. SAFETY
Safety arrangements Yes / No
  (Standard safety practices like guarding all drives, fire-fighting
  equipment, first aid kit, protective gearing for operational staff etc. are
  to be adopted.)

Signature of contractor No. of Corrections Executive Engineer
16. **POLLUTION CONTROL DEVICE**

16.1 Cyclone units

i) Number of cylinders and length of each cylinder : ___________

ii) Re-feeding fines into the mixing zone (Screw conveyer system for re-feeding the fines should be available) Yes / No

16.2 Secondary wet dust collector Water browser / Ventury type

16.3 Bag-house filters present Yes / No

17. **LOAD TEST OF PLANT**

1) Site laboratory with facility for testing moisture content of aggregates Yes / No

2) Accuracy of readings of different scales and meters of instrument panel in comparison with standard weights and measures Yes / No

3) Quality of Asphalt Mix : ________________

(Composite sample should be selected by accumulating fractions from different batches and gradation, asphalt, cement etc. should be checked.)

18. **ANY OTHER TECHNICAL POINTS**

19. **GENERAL REMARKS**

( Signature of Inspection Team Members )

---

**CHECK LIST FOR ASPHALT PAVER FINISHER**

**GENERAL**

1. State and Works Division Concerned : ________________

2. Date of Inspection : ________________

3. Plant Inspected : ________________

4. Plant Location : ________________

5. Work specification and reference : ________________

6. Maximum one way lead : ________________

7. Contractor and Owner of the Plant : ________________

**TECHNICAL FEATURES**

Asphalt Paver should be of reputed make and proven design. All components that come in contact with the mix during the laying processes should be made of high grade of material of thick cross section.

1. **Capacity / Output (mix) of**

   Paver ___________ TPH (mac)

   HMP ___________ TPH at 2% to 6% moisture content.

   Tipper ___________ No. Capacity ____________

2. **Prime Mover**

   Make ________________

   Power ___________ HP/KW at ____________ RPM

3. **Power Transmission** : Hydrostatic or otherwise

4. **Controls**

   Hydraulic or otherwise

---

Signature of contractor No. of Corrections Executive Engineer
5. Range of paving speeds : Infinitely variable or otherwise.

6. Paving width ___________                   Max. ___________              Min.

7. Paving thickness ___________               Max. ___________              Min.


9. Material Distribution
   9.1 Hopper Capacity ___________
   9.2 Two nos. bar feeders/Drag-slat conveyers Yes / No
   9.3 Independent speed control of each bar feeder Yes / No
   9.4 Auger diameter
   9.5 Proportional speed control of each auger halves Yes / No

10. Compaction Mechanism
    10.1 Tamping device Yes / No
    10.2 Screed Vibratory unit Yes / No

11. Screed heating device Gas / Oil / Electric

12. Paver should be equipped with control mechanism so as to ensure that
    the finished surface is free from blemishes For this purpose Paver should
    be provided with electronic sensor control devices for :-
    12.1 Maintaining constant head of material in front of the screed Yes / No
    12.2 Maintaining constant travel speed Yes / No
    12.3 Maintaining proper grade and transverse slope Yes / No

13. Any other remarks.
(Signature of Inspecting Officers)
पुंजीत डाॅबराची आवक आणि खप यांचा हिस्से सांचे दर्शावणारी

नॉंदवही क्र. १

कामाचे नांबऱ्यावर रुपांतरित करा:

मागील सप्ताहापूर्वी कामाच्या ठिकाणी असलेली शिल्लक

आवक आणि खप यांचा हिस्से

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एकूण

कंट्रॅटदाराची सही

अभियंत्वाची सही/अवेशकाची सही

नॉंदवही क्र. २

निर्माणावधीत बाबींढू आठवड्यामध्ये उपयोगात आणणे आवश्यक असलेले डाॅबर परिमाणवर प्रत्यक्षात उपयोगात आणणे परिमाण यांची तुलना दाखविणारे कोष्टक

आठवड्यामध्ये केलेल्या कामाचे एकूण अंदाजे परिमाण.

1) ओपन ग्रेडल्ड कारपेट
2) लिथिम्ड सिल्ककोट
3) बी.बी.एम.

Signature of contractor  No. of Corrections  Executive Engineer
नोंदवही क्र. ३

रोजी संपणान्या आठवडच्या सधी गोष्टी

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कंट्रॅटदाराची सही  
अवेशकाची सही 

Signature of contractor 
No. of Corrections 
Executive Engineer
वज्रचूर्णाची आवक आणि खप यांचा हिशोब दर्शविणारी

नोंदवही क्र. १

कामाचे नाव :- __________________________

मागील सपताहापासून कामाच्या ठिकाणी असलेली शिल्पक

आवक आणि खप यांचा हिशोब

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कंत्राटदराची सही

अभियंत्याची सही/ अवेशकाची सही

नोंदवही क्र. २

निर्माणांशी बारांवर आठवड्यामध्ये उपयोगात आणणे आवश्यक असलेले सिमेंट परिमाण व प्रत्यक्षात उपयोगात आणलेले परिमाण यांची तुलना दर्शविणारे कोष्टक

आठवड्यामध्ये केलेल्या कामाचे एकूण अंदाजेपरिमाण.

1) पाईप व मोन्या
2) इतर संकक्षण
नोंदवही क्र. २

----------------------------- रोजी संपणाण्या आठवड्यासाठी गोष्टीरा

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कंत्राटवाची सही

अवेशकाची सही

Signature of contractor  No. of Corrections  Executive Engineer
ADDITIONAL CONDITION

1. The Asphalt to be used for the bitumen items should be as per the grade as specified in the items and its specifications.

2. The Asphalt if not specified otherwise shall be 60/70-grade asphalt to be used for bituminous items.

3. The Contractor will have to procure 60/70 grade asphalt from refinery or Government approved supplier only. The agency has to make agreement of transport of asphalt from the place of supply by refinery of Government approved supply at Mumbai. His rates will be inclusive of transportation of asphalt.

4. The Star rate of 60/70 grade asphalt of Kolhapur will be Rs.53,572/- per M.T.

5. The difference in between the Star rate of 60/70 grade asphalt and the refinery rate of 60/70 grade asphalt on the date of actual use. (or supply rate of 60/70 grade asphalt of the approved supplier of department as the case may be) will be adjusted.

6. If the agency permitted to use 60/70 or 80/100 grade asphalt the difference between the star rate of 30/40 grade asphalt and the refinery rate of 60/70 or 80/100 grade asphalt as the case may be will be adjusted.

7. Excepting 5 and 6 as above no any separate price escalation will be admissible on bitumen.

8. While admitting the price escalation for other components (other than Bitumen) the cost of work will be = (cost or the work done - Quantity of asphalt X Star rate of asphalt).

9. 30 days before actual execution of Bituminous work, the Contractor will have to submit the cost of asphalt in the form of Demand Draft in the name of Refinery or Government approved supplier to the Executive Engineer in-charge. The Executive Engineer then will place the order of supply of asphalt with refinery or Government approved suppliers it will be the responsibility of the Contractor to procure and transport the asphalt to the site of work at his own cost.

Additional Condition for Payment of Bituminous Works :-

In respect of bituminous work 20% (Twenty percent) payment on bituminous items in 'a' particular kilometer will be with held till completion of agreement items of side berms, built up drains, site clearance, road side furniture, C.D. works and other items in that kilometer as per the instructions of the Engineer-in-charge. After completion of these items in the particular kilometer the withheld payment will be finally released.
**ADDITIONAL CONDITION**

Ref:- 1) The Chief Engineer, P.W. Region, Nasik Letter No. Desk-IV(7)/Store/333
    Date-11/02/2000.

    2) The Superintending Engineer, RW. Circle, Dhule Tender/24/1 Date- 20/05/2000.

The R.C.C pipes required for the work shall be procured from the MISSIDC only. The payment toward providing and fixing NP2 / NP3 / NP4 pipes will be released only after the contractor submits the bills of MISSIDC to authenticate that the pipes have been purchased from the MISSIDC. No payment towards the item of providing and lying of the pipe will be released in absence of the submission of requisite document. After completion of these items in the particular kilometer the withheld payment will be finally released.

**Ensuring Grade of Asphalt**

It shall be mandatory on the part of the contractor to procure the asphalt from government owned refinery only. The Contractor shall communicate the schedule of arrival of bouzwers of asphalt to the Engineer-in-charge. Apparatus Equipment for testing grade of asphalt shall be made available by the Contractor at site. If the grade of asphalt is found as per specification written permission will be giver for unloading the bouzwser by the Engineer-in-charge. Otherwise instruction will be given for not using the same on site. Refer Govt.circular dated 8th Oct 2007

**Additional Condition for carrying the Roughness Index clause**

The Contractor shall be responsible to measure the roughness of road surface for which he may use Roughness Index Testing machine at his own cost. Use of Towered fifth Bump Integrator’ shall be made to measure the roughness of the road surface the Calibration of machine shall be done from time to as and when warranted, from the reputed institutions like CRRI, New Delhi and their certificate shall be values given below for various types of road surface under standard conditions of carrying out the test and as specified below,

1) Bituminous Concrete  2500 mm/Km.  
2) DBM/OGC          3500 mm/Km.  
3) B.M                4000 mm/Km.  
4) Surface dressing  4500 mm/Km.  
5) W.B.M             8000 mm/Km.  

The Roughness Index Test shall be carried out before start of the work, after completion of B.M (wherever applicable) and after completion of the Final bituminous layer wherever applicable as directed by Engineer-in-Charge.
The Additional tender Condition will be as follows: -

"Not withstanding whether it as per the rules of the Traffic authorities of otherwise the agency should ensure that their vehicle the includes all construction machinery toward or self driven are equipped with the following to emphasize traffic safety."

1) Reflector 4 nos.  
2) Tail Lamp 2 Nos.  
3) One of the Following slogan

"Drink & Drive you won't survive"  
"Live & Let Live "  
"A Cat has 9 lives you have only 1"  
जलनी करती काम खराब, होश में आओ लाट साहब  
दारूचा एक च प्याला कारण तुमच्या नशाला  
नको मरण, नको अपेक्षा, बेगाबार ताबा पाठा दक्षता  
समय मुन्खान हे लेकिन जीवन अमुक्य हे

In absence of the above requirement and failure of the agency to fulfill them in a reasonable time the Executive Engineer in-charge of the work will get it done from the Mechanical Wing of RW. Department and would recover the cost from the count due to agency at following rates.

1) Reflector = Rs. 25/- per no.  
2) Tail Lamp = Rs. 175/- per no.  
3) Slogan = Rs. 75/-per no.

Decision of the Executive Engineer win be binding and conclusive in the matter.

TRAFFIC SAFETY MEASURES TO BE TAKEN BY THE CONTRACT OR AT HIS OWN COST DURING IMPROVEMENT OF ROADS WHERE TRAFFIC CAN BE PASSED OVER PART WIDTH

ITEM :- Providing traffic safety measures on road during improvement of existing road comprising of Traffic Sign Boards and devices as per detailed design drawing and specifications and as directed by Engineer in charge.

SPECIFICATIONS :- The item includes traffic safety arrangements required for traffic control near the stretch of road where improvement work is being taken up, before actual start of improvement work of road. The contractor will have to provide traffic safety arrangements as per detailed drawing. The traffic safety arrangement will have to be got approved from Engineer in charge by the contractor before taking any construction activities for improvement of road.

The Engineer in charge shall get himself satisfied about the traffic safety arrangement provided on the work site before allowing contractor to commence the improvement activity and a certificate to that effect shall be recorded in the measurement book.

a) The Sign no.1 "SPEED LIMIT (20")" shall be placed at a distance of 120m away from the point where the transition of carnage way begins. The Sign Board shall be circle of size 60 cm dia. having White background and red border and the numerals shall be in black colour as per IRC 67-2001 (1st revision). Distance between sign no.1 and sign no.2 shall be minimum 20m.
b) The Sign no.2 cautionary board indicating "NARROW ROAD AHEAD" shall be placed at a distance of 80m away from the point of transition of carriageway. The signboard shall be of an equilateral triangle of size 90cm having white coloured background. Retro reflective border in red colour and Non reflective symbol in black colour as per IRC 67-2001 (1st revision).

c) The Sign no.3 cautionary board indicating "MEN AT WORK" shall be placed at a distance of 40 m away from the point of transition of carriageway. The signboard shall be of an equilateral triangle of size 90cm having white coloured background. Retro reflective border in red colour and Non reflective symbol in black colour as per IRC 67-2001 (1st revision).

d) The Sign no. 4 displaying the message "GO SLOW WORK IN PROGRESS" shall be placed at the point of transition of carriageway. The size of sign board shall be 1.0 m X 1.0 m having red coloured background and Retro reflective message in white colour.

e) Sand filled plastic cones mounted with retro reflective arrow hazard marker sign shall be placed as indicated in the drawing. Plastic cone shall be 73 cm in height having 39 cm square / hexagonal base. Sand filled plastic cones shall be placed along the road length where work is in progress as shown in the drawing.

f) Retro reflective strong inviolable stand type barrier shall be placed at either ends of the widening area upto the edge of the formation. The barricades shall not be removed unless the permission is given by the responsible officer of the rank not less than sectional engineer. The barricade shall have two plates of size 1.30m x 0.20m painted black and shall have retro reflective strips and mounted on angle Iron stand of 1.0 m height.

g) Yellow light flashers shall be kept lit from sunset to sunrise, 2 Nos. along transition line of traffic and 3 nos. at barriers on both sides as indicated in the drawing.

h) The signs, lights, barricades and other traffic control devices shall be well maintained, till such time the traffic is commissioned on the widened road. The size, shape and colour of all the sign and caution boards shall be as mentioned above as per detailed drawings in accordance with the relevant I.R.C specifications and as per Ministry of Road Transport and Highway's specifications.

i) The provision of item of traffic safety measures as per drawing no.1 shall be obligatory to the contractor and no separate payment, whatsoever will be made for the same. Failure to supply with the above provisions within 15 days of issue of work order will entitle the department to recover the amount of Rs.1,00,000/- (Rupees one lakh) from the contractor from immediate forthcoming bill/bills.

j) In addition to above the contractor has to provide and fix on the site of work information board (Displaying the details of work) as directed by Engineer in charge, at the starting and end point of work, the wording of item is as under :-
ITEM :- Providing and fixing informatory sign boards in rectangular shape of size mentioned below made out of 16 gauge (1.6 mm) thick steel sheet painted with one coat of Zinc chromate stoving primer and two coats of yellow stoved enamel paint on front side and grey stoved enamel paint on backside with black paint border, messages, symbols etc. including M.S angle iron frame of 35mm x 35mm x 3mm and two M.S. angle iron post of size 65mm x 65mm x 6mm and 3.6m long properly cross braced with angle iron of size 50mm x 50mm x 5mm duly painted with alternate black and white bands of 25 cm width including G.I fixtures and fixing the board in 1:4:8 concrete block of size 60 x 60 x 75 mm including transportation etc. complete.

RSD CATEGORY AS PER IRC- 67 2001 (1st Revision)
Size of sign board 2.45 mm x 1.20 m = 2.94 Sqm.
Size of additional plate 2.45 x 0.40 m = 0.98 Sqm.
Total = 3.92 Sqm.

The number of boards to be provided and fixed are 2 (Two). On failure to provide and fix the information boards as above, an amount of Rs.10.000/- (Rupees Ten Thousand) per board will be recovered from any bill payable to the contractor. This work of providing and fixing the information board shall be completed within 20 days from the date of issue of work order. The details of the board is as per drawing no.2.

INFORMATOR SIGNS
In case of facility information signs, the size of the rectangle shall be 20cm x 90 cm for normal sized sign and 60cm x 45cm for small sized sign. The size of the square shall be 40cm x 30cm Respectively. The size of the symbols shown is for normal sized sign and in case of small sized sign. The symbol shall be three-fourth of the size shown.

4.3 Sign face are normally vertical, but on grades it may be desirable to tilt a sign forward or backward from the vertical to improve the viewing angle.

5. MATERIALS FOR SIGNS
The traffic sign plates may be made of stone enameled metal plate, or other suitable local materials like plywood, timber, plunks with metal sheet lining and reinforced concrete. Nothing in this code should be interpreted to exclude any new material that meets the standard requirements for colour and visibility.

6. POST FOR SIGNS
The signs shall be mounted on separate sign posts, which may be of suitable mild steel sections, galvanized iron pipes, reinforced cement concrete or aluminium sections. In certain circumstances, signs posts and their foundation shall be so constructed as to hold the signs rigidly in a proper and permanent positions, to resist swaying in wind or displacement by children or vandals.

7. MOUNTING OF SIGNS
The signs should be securely bolted to the sign posts so as to prevent their turning or slipping down. In the case of tubular posts, the mounting should permit angular movement with subsequent locking of the sign for extracts adjustment after erection.
8. COLOUR OF SIGNS
8.1 Signs shall be painted in colours as shown on the detailed drawings. The reverse side of all sign plates shall be painted gray.

8.2 Except in the case of level crossing signs (for which the colour scheme is given later) the sign posts shall be painted in 25 cm wide bands, alternately black and white. The lowest band next to the ground shall be in black.

8.3 Colours shall comply with the following I.S.I. shades given in Indian Standard No 5-1961

“Colours for Ready Mixed Paints”.
Blue - Indian Standard Color No, 166 : French Blue
Red - Indian Standard Color No, 537 : Signal Red
Grey - Indian Standard Color No, 630 : French Grey

9. SIZES OF SIGNS
9.1 As general rule, there shall be two sizes of signs for mandatory / regulatory and cautionary warning signs. The normal size shall be used for main roads in rural areas and the small size shall be used for less important roads in rural areas and roads in urban areas. On expressways the size of the signs may be bigger than the normal size depending upon the speed adopted for design. For certain categories of mandatory / regulatory signs a small may be used in conjunction with traffic light single as or on bollards on traffic is lands.

9.2 General dimensions of different categories of signs are given in respective sections.

10.00 Barrier Ahead :
The sign should be erected in advance of the gate barring a road. A pair of signs should be used for the purpose : (i) a warning sign with a definition plate bearing the words “SLOW, BARRIER AHEAD” installed at a distance of 200 m from the barrier, and (ii) another warning sign with definition plate baring the words “DEAD SLOW, BARRIER AHEAD” installed at a distance of 50-100 m in pain and rolling terrain and 30-60m in hilly terrain.

10.1 Unguarded Railway Crossing :-
The sign should be used on the approaches of level crossings where there are no gates or other barriers, A pair of signs shall be used for the purpose : (i) an advance warning sign located at 200m away from the crossing (ii) a second sign to be erected near the crossing. The distance of the second sign from the crossing may be 50-100 m in plain & rolling terrain and 30-60m in hilly terrain.

10.2 Guarded Railway Crossing :-
The sign should be used to warn traffic on the approaches of guarded railway crossings. A pair of signs shall be used for the purpose : (i) an advance warning sign located at 200m away from the crossings (ii) a second sign to be erected near the crossing. The distance of the second sign from the crossing may be 50-100 m in plain & rolling terrain and 30-60m in hilly terrain.

11. INFORMATION SIGNS
11.1 The detailed dimensioned drawings of normal sized sign and symbols is thereon are shown in Plate III for ease of reproduction. For signs of other sizes, the symbols should be proportionately reduced or enlarged. The informatory signs are listed in Annexure III.
11.2 The signs are classified under the following sub-heads keeping in view their design and application:

1) direction and place identification signs.
2) Facility information sing.
3) Other useful information signs.
4) Parking signs and
5) Flood damages.

11.3 Direction and place identification signs

11.3.1 Shape, color and language of inscriptions: These signs shall be rectangular. However, directions signs may be in the shape of an elongated rectangle with the longer side horizontal, terminating in an arrowhead. The signs shall have white background, black letters and arrows and black border. Inspection shall be in English and other language(s) as necessary.

11.3.2 Advance direction: The sign indicated the routes ahead by showing the names of particular place with arrow symbols indicating directions. If decided, distance in km. may be shown the destination names. If more than one places is to be shown in the same direction, the names of the places may grouped and single arrow used for direction indication. The sign shall normally be located at the same distance from the intersection as given in para.

A) Material for informatory sign board

The plates may be made of stove enameled 16 gauge M.S. / Aluminum plate.

Angle posts - shall be of M.S. 50 x 50 x 5 equal angle.

Frame - Shall be of M.S. 35 x 35 x 3 mm size equal angle

Bracers - Shall be of M.S. 25 x 25 x 3 mm size equal angle

B) Foundation / Bed Block -

1:4:8 concrete bed block measuring 0.45 x 0.45 x 0.45 mtr along with excavation in soft / hard strata.

C) Painting -

1) Background of information shall be yellow of Retro Reflective type with black colour lettering in given size including monogram prescribed. The reverse side of all board shall be painted stove enamaled gray colour.

Paint shade be Blue -Indian Standard Color No, 166 French Blue

Red -Indian Standard Color No, 537 Signal Red

Grey-Indian Standard Color No, 630 French Qrey

2) The angle shall be painted in two coats of oil paint and one coat of primer in 25cm alternate bands of black and white oil paint.

D) Workmanship/Joinery -

The frame shall be made as per measurements along with 10cm dia. G.S. nut and bolts also bracers shall be welded or nuts bolted.

E) Location :- The location of boards shall ascertained by Engineer-in-charge or his representative suitably.

F) Before commencement of boards exact draft shall be got approved from competent authority.
डांबरीकरणासाठी पुरवठा करण्यात येत असलेल्या डांबराची प्रत (Grade) निर्धारित करण्यावर कल्याण.

महाराष्ट्र शासन
सर्वसंपर्क बांधकाम विभाग,
शासन परिषद क्रमांक – संकल्प – २००५ / प्र.क्र. १८७ / र.म. – २.
मंत्रालय, मुबई – ४०० ०३२.
दिनांक – ०८ अक्टूबर, २००७.

परिषद -

रस्त्याच्या डांबरीकरणाच्या कामात रिफायतरीतून प्रात प्राप्त होणार्या डांबराच्या प्रत कामार वापरणारी पुनरुंच तपासून खात्रीपणे करणे अत्याधव्यक्त करावे. याणे बाबतची कार्यपद्धत निर्धारित करण्याची बाब शासनाच्या विचारशाखेतील होती. या परिषदाच्या शासन असे निर्देश देत आहेत की, डांबरीकरणाच्या कामाचे वापरणात येणार्या डांबराची प्रत (Grade) तपासणीसाठी खलीलप्रमाणे कार्यपद्धती अवलंबितप्रणाली याची.

अ) ज्या कामासाठी ठेकेदार (Contractor) डांबर रिफायतरीतून प्राप्त करणार आहे अशा डांबर प्राप्तीचे बेल करणे (Schedule of arrival of bouzers) क्षेत्रात अधिकार्यांना देणे बंधकरकर राहिल. डांबराचे प्राप्त (Procuntment) सरकारी कंपन्यांच्या रिफायतरी मथून चरणात करण्यात याचे. तसेच प्लॉटवर प्राप्त जाणेत डांबराची प्रत (Grade) तपासणीसाठी आवश्यक उपकरणे, साहित्य इत्यादी युक्त प्रमाणशाळा उपलब्ध करून देणे ठेकेदारास बंधकरकरकर राहिल.

ब) वरील अ प्रमाणे सुचनाचा अंतर्भाव निविदा प्राप्त्युक्त करण्यात याच्या. रिफायतरीतून डांबराचे बाऊँज ठेकेदाराच्या प्लॉटवर पोहोचत्यानंतर संबंधित क्षेत्रात अधिकार्यांनी रिफायतरीकडून प्राप्त चलन व डिलील्हरी मेमोरियाचा आंकून तपासून डांबराचे प्रत लेखी स्वरूपात (मोजणार पुस्तकपत्र ) नोंदविणे आवश्यक आहे. तसेच क्षेत्रात अधिकार्यांनी प्लॉटवर आलेल्या डांबराची बाऊँजस्थल डांबराचे चाचणी नमुने गोटा करून डांबराची प्रत तपासून ती लेखी स्वरूपात नोंदवली.

क) रिफायतरीतून निर्मित जाणेत्या बाऊँजस्थल डांबराची प्रत वरीलप्रमाणे चाचणी अवहानानुसार जुळून असत्याची खात्री ज्ञातावर संबंधित ठेकेदार अथवा त्याचा अधिकृत प्रतिनिधियांचे उपस्थितीप्रमाणे डांबराचे बाऊँज प्लॉटवर रिकामा करण्याची लेखी प्रवर्तनी क्षेत्रात अधिकारी देतील. त्यानंतर बाऊँज रिकामा करावा. अन्यथा हे डांबर कामासाठी न वापरणावाशी ठेकेदारास लेखी निर्देश देतील.

(कृ.माप.)

Signature of contractor  No. of Corrections  Executive Engineer
3) प्रत्येक कार्यक्रमाला प्लांटवर एक नोंदवारी हेतुवादी, त्यामध्ये बाउडर क्रमांक, चलन क्रमांक, डिप्टीहरू पैमाने क्रमांक, डोंगरचे बनवण, प्रेड तपासणी व चाचणी अधिकार-यांचे नांव इत्यादी तपासाले हेतुवादी.

4) वरीलप्रमाणे क्षेत्रिय अधिकार-यांच्या बाउडरक्रमध्ये डाबराची प्रत्यावरी (Grade of Bitumen) प्रत्यक्ष तपासणीसाठी खालीलप्रमाणे मानकानुसार कार्यवाही करण्याची जबाबदारी क्षेत्रिय अधिकार-यांची राहिल.

<table>
<thead>
<tr>
<th>अं. क्र.</th>
<th>अधिकारी</th>
<th>चाचणी प्रमाण (एकूण परिमाणाच्या)</th>
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</thead>
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<td>1)</td>
<td>कानिष्ठ अभियंता / शाखा अभियंता / सहा. अभियंता (श्रेणी-2)</td>
<td>१०० टॅक्सके</td>
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<td>2)</td>
<td>सहा. कार्यकारी अभियंता / सहा. अभियंता (श्रेणी-३) / उपविभागीय अभियंता / उपविभागीय अधिकारी</td>
<td>२५ टॅक्सके</td>
</tr>
<tr>
<td>3)</td>
<td>कार्यकारी अभियंता</td>
<td>५ टॅक्सके</td>
</tr>
</tbody>
</table>

5) कार्यकारी अभियंता यांना डाबरीकरणाच्या कामाच्या तपासणी दौरान प्लांट साईटवरील डाबराची प्रेड तपासणी करून त्याच्या नॉड नोंदवण्याची आवश्यकता असते.

क्षेत्रिय अधिकार-यांनी वरीलप्रमाणे कार्यपाठ्यतंत्री अंधकारजाहती करणारी.

2. सदर शासन परिषदेश महाराष्ट्र शासनाच्या [www.maharashtra.gov.in] या वेबसाइटवर प्रस्ताव करण्याचा आला असून त्याचा संगणक संकर्तांक २००७१००९१६४०४९००९ असा आहे.

सही/-
(एस.एस.जोगी)
उप सचिव (रा.ग.) महाराष्ट्र शासन

प्रत :-
वरिष्ठ स्वीकार्य सहायक, सचिव (बांधकाम), सा. बा. विभाग, मंत्रालय, मुंबई, स्वीकार्य सहायक, सचिव (रस्ते), सा. बा. विभाग, मंत्रालय, मुंबई, मुख्य अभियंता, व त्यास सचिव, सार्वजनिक बांधकाम विभाग मुंबई/ पुणे / नाशिक / ओशराबाद / नागपूर / अमरवाटी मुख्य अभियंता, विशेष प्रकाश (सा. बा.) विभाग, मुंबई, मुख्य अभियंता, राज्य महामंडळ (सा. बा.) विभाग, कोकण भवन, नवी मुंबई, सर्व अधीक्षक अभियंते, सार्वजनिक बांधकाम मंडळ, सर्व कार्यकारी अभियंते, सार्वजनिक बांधकाम विभाग, सर्व तांत्रिक अधिकारी, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई, कार्यालय अधिकारी, सेवा-६, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई.
**Name of Work :-**
S.T.B.T. from S.H. 180 to Kanur Kurni Gavase
Ibrahimpur- Adkur to S.H.189, M.D.R.66 Km. 4/300 to 7/400, Tal. - Chandagad, Dist. - Kolhapur.
(Part - Kruni to Gavase)

**Bar Chart & Schedule**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activities</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Earthwork, Gutter</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2</td>
<td>75 mm thick Built up Spray grout.</td>
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<tr>
<td>3</td>
<td>20 mm thick O.G.C. with liquid seal coat.</td>
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<tr>
<td>4</td>
<td>Misc. Works</td>
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<td></td>
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</table>

# Note :- * Month One is month of Work Order.
**SCHEDULE "B" AND SPECIFICATIONS**

**Name of Work :-**
S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H. 189, M.D.R. 66 Km 4 / 300 to 7/400, Tal. -Chandgad, Dist. - Kolhapur (Part - Kurni to Gavase)

**Notes :-**
1) All the quantities shown in the Schedule 'B' are approximate and are likely to vary at the time of actual execution, as such no claims on this account shall be entertained.

2) All rates are inclusive of all leads, lifts material and labour involved for completed items and site clearance.

3) The rates inclusive of all taxes, royalty charges and octroies.

4) The work shall be carried out as per the instructions/orders and to the entire satisfaction of Engineer-in-charge.


6) In the case of detailed specification all other specification not quoted directly in column no. 3 and 4 but quoted in the standard specification book are also applicable as and when necessary even if such specification number are not mentioned in column no. 3 and 4. For the points not covered in the Specification given in the standard Specification Book or given as additional specification for respective items, the instructions of the Executive Engineer are final and binding on the contractor.

7) Government Circulars issued previously and will be issued hereafter are binding on the Contractor.

**D.S.R. - 2013-14**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Quantity Estimated, but may be more or less</th>
<th>Item of work</th>
<th>Estimated rates in Rupees</th>
<th>Unit</th>
<th>Total Amount according to estimated quantities</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>In Figures</td>
<td>In Words</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
|   | 1100.630 | Providing, laying and rolling of built-up spray grout layer over the prepared base consisting of a two layers composite construction of compacted crushed coarse aggregates using motor grader for aggregates, key stone chips spreader may be used with application of bituminous binder after each layer and with key aggregates placed on top of the second layer to serve as a base confirming to the line, grades and cross-section specified the compacted layer thickness being 75 millimeter. On black topped surface. Including applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 25 kilogram per 100 square metre.
-Using bulk asphalt VG - 30 (grade 60/70). |
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<tr>
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<tr>
<td></td>
<td>327.80</td>
<td>Rupees Three Hundred Twenty Seven And Paise Eighty Only.</td>
<td></td>
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<tr>
<td></td>
<td>Per Square Meter</td>
<td>360786.51</td>
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<tr>
<td></td>
<td>9750.000</td>
<td>Providing, laying and rolling of open graded premix surfacing of 20 millimeter thickness composed of 13.2 millimeter to 5.6 millimeter aggregates either using penetration grade bitumen or cut back or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in suitable plant at the rate of 146 kilogram per 100 square metre, laying with a hydrostatic paver finisher with sensor control to the required grade and rolling with a smooth wheeled roller 8-10 tonnes capacity finished to required level and grades on black topped surface including providing and laying seal coat sealing the voids in a bituminous surface laid to the specified level and cross fall using type A seal coat at the rate of 98 kilogram per 100 Square meter. Including applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 25 kilogram per 100 Square metre. Using VG-30 (60/70 grade) bulk asphalt.</td>
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<tr>
<td></td>
<td>235.30</td>
<td>Rupees Two Hundred Thirty Five And Paise Thirty Only.</td>
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<td></td>
<td>Per Square Meter</td>
<td>2294175.00</td>
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</tbody>
</table>

Signature of Contractor
No. of Corrections
Executive Engineer, P. W. (South) Division, Kolhapur
Page: 168.
<p>| | | | | | | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>3</td>
<td>936.000</td>
<td>Providing hard murum for side widths on each side including supplying conveying stacking, spreading, compacting and watering etc. complete.</td>
<td>389.65</td>
<td>Rupees Three Hundred Eighty Nine And Paise Sixty Five Only.</td>
<td>Per Cubic Metre</td>
<td>364712.40</td>
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<tr>
<td>4</td>
<td>970.000</td>
<td>Excavation for catch / side water gutter in a strata the specified section including stacking the excavated stuff in a regular bund and disposing off unsuitable or excess stuff as directed in all sorts of soils by mechanical means.</td>
<td>82.20</td>
<td>Rupees Eighty Two And Paise Twenty Only.</td>
<td>Per Cubic Metre</td>
<td>79734.00</td>
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<tr>
<td>5</td>
<td>1440.750</td>
<td>Labour charges for removing grass, thorny shrubs, shrub, Kubabhum and alike grass along roadside making the ground clean by shovel and phavara excreta complete.</td>
<td>12.80</td>
<td>Rupees Twelve And Paise Eighty Only.</td>
<td>Per Square Meter</td>
<td>18441.60</td>
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<td>6</td>
<td>10.000</td>
<td>Providing and laying cement concrete pipe of 600 millimetre diameter confirming to Indian Standard 458:2003 non pressure class-2 in proper line, level and slope including providing, fixing collars in cement mortar 1:2, curing complete.</td>
<td>2144.05</td>
<td>Rupees Two Thousand One Hundred Forty Four And Paise Five Only.</td>
<td>Per Running Metre</td>
<td>21440.50</td>
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<td>7</td>
<td>30.000</td>
<td>Providing and laying cement concrete pipe of 800 millimetre diameter confirming to Indian Standard 458:2003 non pressure class-2 in proper line, level and slope including providing, fixing collars in cement mortar 1:2, curing complete.</td>
<td>3448.10</td>
<td>Rupees Three Thousand Four Hundred Forty Eight And Paise Ten Only.</td>
<td>Per Running Metre</td>
<td>103443.00</td>
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<tr>
<td>8</td>
<td>4.000</td>
<td>Providing and fixing reinforced cement concrete 1:2:4 ordinary kilometre stones including painting, numbering, excreta complete for National Highway, State Highway and Major district roads excreta as per Indian road congress design for highway Kilometre stone and fixing in standard size of cement concrete 1:4:8 block, complete.</td>
<td>2227.55</td>
<td>Rupees Two Thousand Two Hundred Twenty Seven And Paise Fifty Five Only.</td>
<td>Per Number</td>
<td>8910.20</td>
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<td>Providing and fixing reinforced cement concrete 200 stones as per Indian road congress standard including painting, lettering, fixing in cement concrete 1:4:8 block, curing, excreta complete.</td>
<td></td>
<td>Rupees Six Hundred Fifty Five And Paise Fifty Only.</td>
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<tr>
<td>9</td>
<td>14,000 Numbers</td>
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<tr>
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<th>Providing and fixing reinforced cement concrete 1:2:4 boundary stones as per type design including painting, numbering, fixing in standard size of cement concrete 1:4:8 block complete.</th>
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<th>Rupees Six Hundred Sixty One And Paise Five Only.</th>
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<td>10</td>
<td>275,000 Numbers</td>
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<td>181788.75</td>
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<p>|   |   | Providing and fixing Road junction / Information sign board of size 1.20 metre X 0.75 metre, prepared on 16 gauge mild steel sheet with angle iron frame of size 35 millimeter X 35 millimeter X 3 millimeter with cross bracing of size 25 millimeter X 25 millimeter X 3 millimeter including painting with one coat of zinc cremate stoving primer and two coats each of green / white background and back side gray stoving enamel, bonded with cut out of Retro reflective sheet Engineering grade, symbol / letters / numerals / border arrow, coated with non pealable crystal clear protective transparent coat retaining 100 percent reflection including two numbers of mild steel angle iron post of size 50 millimeter X 50 millimeter X 5 millimeter of 3.65 meter long inflated at bottom drilled on top and painted in white and black bands of 25 centimeter with four numbers of high strength galvanised iron bolts and nuts of size 10 millimeter diameter, 20 millimeter long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 centimeter X 60 centimeter X 75 centimeter size as directed by Engineer in-charge excreta complete. |   | Rupees Five Thousand Four Hundred Ninety Nine And Paise Forty Five Only. |   |   |
| 11 | 2,000 Numbers |   |   |   |   | 10998.90 |</p>
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<tr>
<td>12</td>
<td>6,000</td>
<td>Numbers</td>
<td>Providing and fixing Road junction / Information sign board of size 0.90 metre X 0.60 metre Prepared on 16 gauge mild steel sheet with angle iron frame of size 25 millimetre x 25 millimetre X 3 millimetre including painting with one coat of zinc cremate stoving primer and two coats each of green/white background, and back side gray stove enameled, bonded with Red Retro reflective sheet Engineering grade, border / letters / numerals / arrow, coated with non pealable crystal clear protective coat retaining 100 percent reflection including two angle iron post of size 50 millimetre X 50 millimetre X 5 millimetre and 3.65 metre long inflated at bottom drilled on top and painted in white and blank bands of 25 centimetre with four numberes of high strength galvanised iron bolts and nuts of size 10 millimetre diametre and 20 millimetre long. Sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 centimetre X 60 centimetre X 75 centimetre size as directed by Engineer in-charge excreta complete.</td>
<td>4,277.35</td>
<td>Rupees Four Thousand Two Hundred Seventy Seven And Paise Thirty Five Only.</td>
<td>25,664.10</td>
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</table>
13 | 4.000 | Providing and fixing cautionary / warning sign board size 90 centimetre having shape of equilateral triangle with apex pointing upwards. Prepared on 16 gauge mild steel sheet including painting with one coat of zinc cremate stoving primer and two coats each of white background, red border and backside gray stove enameled, bonded with cut out of Retro reflective sheet Engineering grade, symbol / letters / numerals / border arrow, coated with non pealable crystal clear protective transparent coat retaining 100 percent reflection including one number of mild steel Angle iron post of size 50 millimetre X 50 millimetre X 5 millimetre of 3.65 metre long inflated at bottom drilled on top in one piece without joint painted with white and black bands of 25 centimetre Fixing board and post with two numbers of high strength galvanised iron bolts and nuts of size 10 millimetre diameter 20 millimetre long including all taxes, conveying, fixing in ground cement concrete 1:4:8 block of 60 centimetre X 60 centimetre X 75 centimetre size as directed by Engineer in-charge excreta complete. | 2627.50 | Rupees Two Thousand Six Hundred Twenty Seven And Paise Fifty Only. | Per Number | 10510.00 |

| 14 | 3.000 | Penetration, Softening Point, Flash and Fire Point, Specific Gravity for Asphalt VG-30 (Grade 60/70) | 2300.00 | Rupees Two Thousand Three Hundred And Paise Nil Only. | Per Number | 6900.00 |

<p>| 15 | 3.000 | Viscosity Test for Asphalt VG-30 (Grade 60/70) | 1500.00 | Rupees One Thousand Five Hundred And Paise Nil Only. | Per Number | 4500.00 |</p>
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<tr>
<td>16</td>
<td>4,000</td>
<td>Ductility / Elastic Recovery for Asphalt VG-30 (Grade .60/70) Numbers</td>
<td>700.00</td>
<td>Rupees Seven Hundred And Paise Nil Only.</td>
<td>Per Number</td>
<td>2800.00</td>
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<tr>
<td>17</td>
<td>2,000</td>
<td>Sieve Analysis Test for Metal below 40 milimetre Numbers</td>
<td>500.00</td>
<td>Rupees Five Hundred And Paise Nil Only.</td>
<td>Per Number</td>
<td>1000.00</td>
</tr>
<tr>
<td>18</td>
<td>1,000</td>
<td>Water Absorption, Specific Gravity, Impact Value, Crushing Value Test for Metal below 40 milimetre Number</td>
<td>2000.00</td>
<td>Rupees Two Thousand And Paise Nil Only.</td>
<td>Per Number</td>
<td>2000.00</td>
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<tr>
<td>19</td>
<td>1,000</td>
<td>Flakiness Index / Elongation Index Test for Metal below 40 milimetre Number</td>
<td>325.00</td>
<td>Rupees Three Hundred Twenty Five And Paise Nil Only.</td>
<td>Per Number</td>
<td>325.00</td>
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<td>20</td>
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<td>Viscosity Test for Emulsion Number</td>
<td>1500.00</td>
<td>Rupees One Thousand Five Hundred And Paise Nil Only.</td>
<td>Per Number</td>
<td>1500.00</td>
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<tr>
<td>21</td>
<td>1,000</td>
<td>Ductility / Elastic Recovery for Emulsion Number</td>
<td>700.00</td>
<td>Rupees Seven Hundred And Paise Nil Only.</td>
<td>Per Number</td>
<td>700.00</td>
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<td>22</td>
<td>3,000</td>
<td>Sieve Analysis Test for Mix Material / Crushed Metal Numbers</td>
<td>500.00</td>
<td>Rupees Five Hundred And Paise Nil Only.</td>
<td>Per Number</td>
<td>1500.00</td>
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</tbody>
</table>

Signature of Contractor

No. of Corrections

Executive Engineer, P. W. (South) Division, Kolhapur

Page: 173.
<p>| | | | | | | |</p>
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<td>23</td>
<td>1.000</td>
<td>Water Absorption, Specific Gravity, Impact Value, Crushing Value Test for Mix Material / Crushed Metal</td>
<td>2000.00</td>
<td>Rupees Two Thousand And Paise Nil Only.</td>
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<td>24</td>
<td>1.000</td>
<td>Flakiness Index / Elongation Index Test for Mix Material / Crushed Metal</td>
<td>325.00</td>
<td>Rupees Three Hundred Twenty Five And Paise Nil Only.</td>
<td>325.00</td>
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<tr>
<td>25</td>
<td>2.000</td>
<td>Extraction Test for Mix Material</td>
<td>1200.00</td>
<td>Rupees One Thousand Two Hundred And Paise Nil Only.</td>
<td>2400.00</td>
<td></td>
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<tr>
<td>26</td>
<td>9.000</td>
<td>Sieve Analysis Test for Hard Murum</td>
<td>500.00</td>
<td>Rupees Five Hundred And Paise Nil Only.</td>
<td>4500.00</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>4.000</td>
<td>Liquid Limit and Plastic Limit for Hard Murum</td>
<td>850.00</td>
<td>Rupees Eight Hundred Fifty And Paise Nil Only.</td>
<td>3400.00</td>
<td></td>
</tr>
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</table>

**Total Rs.** 3523631.96

(Rupees Thirty Five Lakh Twenty Three Thousand Six Hundred Thirty Two Only.)

Say Rs. 3523632.00
SCHEDULE - "C" Specification (Civil)

Name of Work :-
S.T.B.T. from S.H. 180 to Kanur Kurni Gavase Ibrahimpur- Adkur to S.H. 189, M.D.R. 66 Km 4 / 300 to 7/400, Tal. - Chandgad, Dist. - Kolhapur (Part - Kurni to Gavase)

Notes :-
1) All the rates are inclusive of all leads and lifts, labour and material involved for completed items and site clearance.

2) The rates are inclusive of all taxes, octroi and and Royalty charges.

3) Quantities shown in the schedule"B" are only approximate and are liable to vary during actual execution as such as no claims on this account shall be entertained.


5) For the points not covered in the specifications given in the standard specification book and additional specifications given for the items shall of followed and where no such specifications are given additional specifications are quoted of the Engineer in charge.

6) In Case of detailed specification all other specification quoted directly in col. No.3 and 4, but quoted in the standard specifications book as part three are also applicable as and when necessary even if such specification numbers are not mentioned in col. No. 3 and 4.

7) The work shall be executed as per orders and entire sastification of Engineer - in - charge.


9) For point not covered specification given in the standard specification book and additional specification given for the respective items shall be followed.
1. Providing, laying and rolling of built-up spray grout layer over the prepared base consisting of a two-layer composite construction of compacted crushed coarse aggregates using motor grader for aggregates, key stone chips spreader may be used with application of bituminous binder after each layer and with key aggregates placed on top of the second layer to serve as a base confirming to the line, grades and cross-section specified the compacted layer thickness being 75 millimeter. On black topped surface. Including applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 25 kilogram per 100 square metre.
- Using bulk asphalt VG - 30 (grade 60/70).

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item of Work</th>
<th>Reference to Standard Specification Book published by Govt. of Maharashtra 1979 and 1981 Edition and specification for road and bridge works published by Ministry Of Road Transport And Highway (Govt. of India) 2013</th>
<th>Additional Specifications if Any</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Providing, laying and rolling of built-up spray grout layer over the prepared base consisting of a two-layer composite construction of compacted crushed coarse aggregates using motor grader for aggregates, key stone chips spreader may be used with application of bituminous binder after each layer and with key aggregates placed on top of the second layer to serve as a base confirming to the line, grades and cross-section specified the compacted layer thickness being 75 millimeter. On black topped surface. Including applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 25 kilogram per 100 square metre. - Using bulk asphalt VG - 30 (grade 60/70).</td>
<td>MORTH - 501 149 - 162 506 167 - 170 902 417 - 421 903 421 - 436 503 168 - 170</td>
<td>1. The work shall be carried out in day time and in dry weather. 2. The representative of contractor shall maintain a register giving details of challens for bitumen received and should get it signed from the representative incharge of the Department in token of its acceptance. 3. For controlling traffic and maintaining diversion during construction, no extra payment shall be made. 4. For BUSG, Specification No. MORTH- 506 Page No. 167 - 170 is as per Orange Book Edition 2001, Revision 4th.</td>
</tr>
</tbody>
</table>
2 Providing, laying and rolling of open graded premix surfacing of 20 millimeter thickness composed of 13.2 millimeter to 5.6 millimeter aggregates either using penetration grade bitumen or cut back or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in suitable plant at the rate of 146 kilogram per 100 square metre, laying with a hydrostatic paver finisher with sensor control to the required grade and rolling with a smooth wheeled roller 8-10 tonnes capacity finished to required level and grades on black topped surface including providing and laying seal coat sealing the voids in a bituminous surface laid to the specified level and cross fall using type A seal coat at the rate of 98 kilogram per 100 Square meter. Including applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 25 kilogram per 100 Square metre. Using VG-30 (60/70 grade) bulk asphalt.

3 Providing hard murum for side widths on each side including supplying conveying stacking, spreading, compacting and watering etc. complete.

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<th>1</th>
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</thead>
</table>
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3. For controlling traffic and maintaining diversion during construction, no extra payment shall be made. | 510 | 198 - 205 |
<p>| | | 511 | 205 - 207 |
| | | 902 | 417 - 421 |
| | | 903 | 421 - 436 |
| | | 112 | 19 - 21 |
| | | 503 | 168 - 170 |
| 3 Providing hard murum for side widths on each side including supplying conveying stacking, spreading, compacting and watering etc. complete. | RD. 23 | 202 - 203 |
| | RD.39 | 210 - 211 |
| | RD.40 | 211 |</p>
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<tr>
<td>4</td>
<td>Excavation for catch / side water gutter in a strata the specified section including stacking the excavated stuff in a regular bund and disposing off unsuitable or excess stuff as directed in all sorts of soils by mechanical means.</td>
<td>RD.9</td>
<td>187</td>
<td>1. The useful excavated material shall be utilised as directed by the Engineer in-charge. 2. The rate of contract shall be for one cubic metre instead of one running metre as mentioned in the specification.</td>
</tr>
<tr>
<td>5</td>
<td>Labour charges for removing grass, thorny shrubs, shrub, Kubabhul and alike grass along roadside making the ground clean by showel and phavaras excreta complete.</td>
<td>------</td>
<td></td>
<td>The work shall be carried out as per Instructions of Engineer in Charge.</td>
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<tr>
<td>6</td>
<td>Providing and laying cement concrete pipe of 600 millimetre diameter confirming to Indian Standard 458:2003 non pressure class-2 in proper line, level and slope including providing, fixing collars in cement mortar 1:2, curing complete.</td>
<td>CD. 7</td>
<td>162 - 163</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Providing and laying cement concrete pipe of 800 millimetre diameter confirming to Indian Standard 458:2003 non pressure class-2 in proper line, level and slope including providing, fixing collars in cement mortar 1:2, curing complete.</td>
<td>CD. 7</td>
<td>162 - 163</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Providing and fixing reinforced cement concrete 1:2:4 ordinary kilometre stones including painting, numbering, excreta complete for National Highway, State Highway and Major district roads excreta as per Indian road congress design for highway Kilometre stone and fixing in standard size of cement concrete 1:4:8 block, complete.</td>
<td>RD. 69</td>
<td>243 - 244</td>
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<td>9</td>
<td>Providing and fixing reinforced cement concrete 200 stones as per Indian road congress standard including painting, lettering, fixing in cement concrete 1:4:8 block, curing, excreta complete.</td>
<td>RD. 69</td>
<td>243 - 244</td>
<td></td>
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<tr>
<td>10</td>
<td>Providing and fixing reinforced cement concrete 1:2:4 boundary stones as per type design including painting, numbering, fixing in standard size of cement concrete 1:4:8 block complete.</td>
<td>RD. 69</td>
<td>243 - 244</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Providing and fixing Road junction / Information sign board of size 1.20 metre X 0.75 metre, prepared on 16 gauge mild steel sheet with angle iron frame of size 35 millimeter X 35 millimeter X 3 millimeter with cross bracing of size 25 millimeter X 25 millimeter X 3 millimeter including painting with one coat of zinc cremate stoving primer and two coats each of green / white background and back side gray stove enameled, bonded with cut out of Retro reflective sheet Engineering grade, symbol / letters / numerals / border arrow, coated with non pealable crystal clear protective transparent coat retaining 100 percent reflection including two numbers of mild steel angle iron post of size 50 millimeter X 50 millimeter X 5 millimeter of 3.65 meter long inflated at bottom drilled on top and painted in white and black bands of 25 centimeter with four numbers of high strength galvanised iron bolts and nuts of size 10 millimeter diameter, 20 millimeter long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 centimeter X 60 centimeter X 75 centimeter size as directed by Engineer in-charge excreta complete.</td>
<td>I.R.C.:</td>
<td>67 -1977</td>
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Signature of Contractor: No. of Corrections: Executive Engineer, P. W. (South) Division, Kolhapur: Page:- 179.
<table>
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<tr>
<td>12 Providing and fixing Road junction / Information sign board of size 0.90 metre X 0.60 metre Prepared on 16 gauge mild steel sheet with angle iron frame of size 25 millimetre x 25 millimetre X 3 millimetre including painting with one coat of zinc cremate stoving primer and two coats each of green/white background, and back side gray stove enameled, bonded with Red Retro reflective sheet Engineering grade, border / letters / numerals / arrow, coated with non pealable crystal clear protective coat retaining 100 percent reflection including two angle iron post of size 50 millimetre X 50 millimetre X 5 millimetre and 3.65 metre long inflated at bottom drilled on top and painted in white and blank bands of 25 centimetre with four numberes of high strength galvanised iron bolts and nuts of size 10 millimetre diametre and 20 millimetre long. Sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 centimetre X 60 centimetre X 75 centimetre size as directed by Engineer in-charge excreta complete.</td>
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<td>Executive Engineer, P. W. (South) Division, Kolhapur</td>
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<tr>
<td>13</td>
<td>Providing and fixing cautionary / warning sign board size 90 centimetre having shape of equilateral triangle with apex pointing up-words. Prepared on 16 gauge mild steel sheet including painting with one coat of zinc cremate stoving primer and two coats each of white background, red border and backside gray stove enameled, bonded with cut out of Retro reflective sheet Engineering grade, symbol / letters / numerals / border arrow, coated with non pealable crystal clear protective transparent coat retaining 100 percent reflection including one number of mild steel Angle iron post of size 50 millimetre X 50 millimetre X 5 millimetre of 3.65 metre long inflated at bottom drilled on top in one piece without joint painted with white and black bands of 25 centimetre Fixing board and post with two numbers of high strength galvanised iron bolts and nuts of size 10 millimetre diametre 20 millimetre long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 centimetre X 60 centimetre X 75 centimetre size as directed by Engineer in-charge excreta complete.</td>
<td>I.R.C.:</td>
<td>67-1977</td>
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Laboratory testing charges for various materials for items of work, on the basis of testing frequency and charges fixed by Vigilance and Quality Control Circle, Pune.

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<tbody>
<tr>
<td>1. The amount of the laboratory testing charges will be paid to the contractor after submission of the original receipt from the office of the Vigilance and Quality Control with name of work mentioned on the original receipt within the stipulated period of work.</td>
<td></td>
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<tr>
<td>2. The frequency of tests will be as per the instructions of Vigilance and Quality Control, Pune, vide their letter No. Prasha/2647/2010 dated 30/10/2010.</td>
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<tr>
<td>3. No extra claim shall be entertained on account of additional tests required and material transportation charges for tests.</td>
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<tr>
<td>4. In addition to above, the conditions under clause 25 - Samples and Testing of Material, under 'Additional General Conditions and Specifications' of this tender document shall be applicable.</td>
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| 14 | Penetration, Softening Point, Flash and Fire Point, Specific Gravity for Asphalt VG-30 (Grade 60/70) | ----- | ----- | 1 Test per 7.50 Metric Tonne |
| 15 | Viscosity Test for Asphalt VG-30 (Grade 60/70) | ----- | ----- | 1 Test per 7.50 Metric Tonne |
| 16 | Ductility / Elastic Recovery for Asphalt VG-30 (Grade .60/70) | ----- | ----- | 1 Test per 7.50 Metric Tonne |
| 17 | Sieve Analysis Test for Metal below 40 milimetre | ----- | ----- | 1 Test per 100.00 Cubic Metre |
| 18 | Water Absorption, Specific Gravity, Impact Value, Crushing Value Test for Metal below 40 milimetre | ----- | ----- | 1 Test per Source |

Signature of Contractor

No. of Corrections

Executive Engineer, P. W. (South) Division, Kolhapur
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<td>1 Test per 100.00 Cubic Metre</td>
</tr>
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<td>23</td>
<td>Water Absorption, Specific Gravity, Impact Value, Crushing Value Test for Mix Material / Crushed Metal</td>
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<td>1 Test per Source</td>
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<td>24</td>
<td>Flakiness Index / Elongation Index Test for Mix Material / Crushed Metal</td>
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<tr>
<td>25</td>
<td>Extraction Test for Mix Material</td>
<td>----</td>
<td>----</td>
<td>2 Test per 500.00 Cubic Metre</td>
</tr>
<tr>
<td>26</td>
<td>Sieve Analysis Test for Hard Murum</td>
<td>----</td>
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<td>1 Test per 100.00 Cubic Metre</td>
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<td>27</td>
<td>Liquid Limit and Plastic Limit for Hard Murum</td>
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<td>----</td>
<td>1 Test per 250.00 Cubic Metre</td>
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</table>