

प्रेषक,

अधिकाशासी अभियन्ता  
रामपुर नहर खण्ड रामपुर।

प्रेषित,

सूचना निदेशक,  
सूचना एवं जन सम्पर्क निदेशालय,  
उत्तर प्रदेश, लखनऊ।

पत्रांक: /रानख/ई-निविदा (2026-27)/

दिनांक: / /2026

विषय: ई-निविदा सूचना संख्या 01/अधि0अभि0/2026-27 के प्रकाशन के संबंध में।

प्रिय महोदय,

उपरोक्त विषयक ई-निविदा सूचना संख्या 01/अधि0अभि0/2026-27 छः प्रतियों में संलग्न कर इस अनुरोध के साथ प्रेषित है कि वर्णित ई-निविदा सूचनाओं का प्रकाशन किन्ही दो दैनिक हिन्दी व एक उर्दू दैनिक समाचार पत्रों में प्रकाशित करने का कष्ट करें।

संलग्नक:- 1. ई-निविदा सूचना की 06 प्रतियाँ।

2. ई-निविदा सूचना की सी0डी0।

(नवीन कुमार सिंह)  
अधिकाशासी अभियन्ता  
रामपुर नहर खण्ड रामपुर

पत्रांक: /रानख/ई-निविदा 2025-26/ दिनांक:

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है-

1. मुख्य अभियन्ता पूर्वी गंगा, सिंचाई एवं जल संसाधन विभाग, उ0प्र0, मुरादाबाद।
2. अधीक्षण अभियन्ता, कम्प्यूटर केन्द्र, सिंचाई एवं जल संसाधन विभाग, उ0प्र0, लखनऊ।
3. अधीक्षण अभियन्ता, सिंचाई कार्य मण्डल, मुरादाबाद।
4. जिलाधिकारी, जनपद रामपुर।
5. मुख्य विकास अधिकारी, जनपद रामपुर।
6. वरिष्ठ पुलिस अधीक्षक, जनपद रामपुर।
7. अधिकाशासी अभियन्ता, अफजलगढ सिंचाई खण्ड, धामपुर।
8. अधिकाशासी अभियन्ता, बाढ खण्ड, मुरादाबाद।
9. अधिकाशासी अभियन्ता, सिंचाई खण्ड, मुरादाबाद।
10. जिला सूचना अधिकारी, रामपुर।
11. नोटिस बोर्ड हेतु।

संलग्नक निविदा सूचना।

(नवीन कुमार सिंह)  
अधिकाशासी अभियन्ता  
रामपुर नहर खण्ड रामपुर

**कार्यालय अधिशासी अभियन्ता**  
**रामपुर नहर खण्ड रामपुर**  
**ई-निविदा सूचना संख्या-01/अधि0अभि0/2026-27**

महामहिम राज्यपाल महोदय उत्तर प्रदेश की ओर से अधोहस्ताक्षरी द्वारा निम्नलिखित कार्यो हेतु <http://etender.up.nic.in> के माध्यम से ऑनलाइन प्री-क्वालीफिकेशन/टेक्निकल एवं फाइनैशियल बिड सिंचाई विभाग के वर्गीकृत 'सी' व 'सी' से उच्च श्रेणी में पंजीकृत ठेकेदार/फर्म से दिनांक 27.05.2026 को अपरान्ह 12:00 बजे तक निविदा आमन्त्रित की जाती है, जिनकी प्री-क्वालीफिकेशन/टेक्निकल बिड मुख्य अभियन्ता (पूर्वी गंगा) सिंचाई विभाग, उत्तर प्रदेश, मुरादाबाद द्वारा निर्धारित समिति द्वारा दिनांक 27.05.2026 को अपरान्ह 1:00 बजे ऑनलाइन खोली जायेगी। टेक्निकल बिड में क्वालिफाई होने वाले निविदादाताओं की फाइनैशियल बिड खोलने की तिथि बाद में जारी की जाएगी। ई-निविदा प्रपत्र दिनांक 22.05.2026 प्रातः 09:00 बजे से दिनांक 27.05.2026 की अपरान्ह 12:00 बजे तक डाउनलोड/अपलोड किये जा सकेंगे। कार्यालय बन्द होने या अवकाश होने की दशा में यह बिड अगले कार्यालय दिवस में निर्धारित समय पर खोली जायेगी।

क्र०सं०	कार्य का नाम	कार्य की लागत बिना जी०एस०टी (लाख रू० में)	धरोहर राशि (लाख रू० में)	कार्य को पूर्ण करने की अवधि	निविदा प्रपत्र का मूल्य (जी०एस०टी सहित)	पंजीकृत श्रेणी
1	Silt Clearance of Ahmadnagar Drain From Km 0.000 to Km 12.400 in Disttrict Rampur.	5.51	0.11	20 दिन	354	'सी' अथवा 'सी' से उच्च
2	Silt Clearance of Mehndipur Drain From Km 0.000 to Km 6.800 in Disttrict Rampur.	2.18	0.04	20 दिन	354	'सी' अथवा 'सी' से उच्च
3	Silt Clearance of Pasiapura Drain From Km 0.000 to Km 6.150 in Disttrict Rampur.	1.97	0.04	20 दिन	354	'सी' अथवा 'सी' से उच्च
4	Silt Clearance of Bishanpuri Drain From Km 0.000 to Km 10.500 in Disttrict Rampur.	3.36	0.07	20 दिन	354	'सी' अथवा 'सी' से उच्च
5	Silt Clearance of Khaira Drain From Km 0.000 to Km 15.000 in Disttrict Rampur.	4.81	0.10	20 दिन	354	'सी' अथवा 'सी' से उच्च
6	Silt Clearance of Bhaisiya Jwalapur Drain From Km 0.000 to Km 7.000 in Disttrict Rampur.	2.24	0.04	20 दिन	354	'सी' अथवा 'सी' से उच्च
7	Silt Clearance of Beebra Drain From Km 0.000 to Km 16.500 in Disttrict Rampur.	6.78	0.14	20 दिन	354	'सी' अथवा 'सी' से उच्च
8	Silt Clearance of Kuiya Drain From Km 0.000 to Km 6.000 in Disttrict Rampur.	1.92	0.04	20 दिन	354	'सी' अथवा 'सी' से उच्च
9	Silt Clearance of Hazratpur Drain From Km 0.000 to Km 5.500 in Disttrict Rampur.	1.69	0.03	20 दिन	354	'सी' अथवा 'सी' से उच्च
10	Silt Clearance of Lakhimpur Drain From Km 0.000 to Km 10.400 in Disttrict Rampur.	4.58	0.09	20 दिन	354	'सी' अथवा 'सी' से उच्च
11	Silt Clearance of Saednagar Drain From Km 0.000 to Km 7.200 in Disttrict Rampur.	3.22	0.06	20 दिन	354	'सी' अथवा 'सी' से उच्च
12	Silt Clearance of Dohriya Drain From Km 0.000 to Km 8.800 in Disttrict Rampur.	3.90	0.08	20 दिन	354	'सी' अथवा 'सी' से उच्च

13	Silt Clearance of Bisri Drain From Km 0.000 to Km 7.500 in Distrrict Rampur.	3.31	0.07	20 दिन	354	'सी' अथवा 'सी' से उच्च
14	Silt Clearance of Teda Drain From Km 0.000 to Km 8.000 & Km 12.000 to Km 13.000 in Distrrict Rampur.	4.07	0.08	20 दिन	354	'सी' अथवा 'सी' से उच्च
15	Silt Clearance of Rehpura Drain From Km 0.000 to Km 14.600 in Distrrict Rampur.	6.44	0.13	20 दिन	354	'सी' अथवा 'सी' से उच्च
16	Silt Clearance of Nakatiya Drain From Km 0.000 to Km 11.000 in Distrrict Rampur.	4.87	0.10	20 दिन	354	'सी' अथवा 'सी' से उच्च
17	जनपद रामपुर की तहसील बिलासपुर में स्थित खैरा नाले के कि०मी० 14.600 पर क्षतिग्रस्त वी०आर०वी० के पुनर्निर्माण का कार्य।	16.69	0.33	20 दिन	354	'सी' अथवा 'सी' से उच्च
18	जनपद रामपुर की तहसील सदर के अन्तर्गत कोसी नदी के बाँये किनारे पर स्थित लालपुर रूहेला फेस-2 तटबन्ध की बाढ़ से सुरक्षा हेतु कि०मी० 5.000 से कि०मी० 5.900 के मध्य डबल बल्ला स्कीन एवं बल्ली कटर बनाने का कार्य व नदी की धारा को पूर्ववर्ती रूप में परिवर्तित करने का कार्य।	2.62	0.05	20 दिन	354	'सी' अथवा 'सी' से उच्च
19	जनपद रामपुर की तहसील टाण्डा के अन्तर्गत कोसी नदी के दाँये किनारे पर स्थित ग्राम प्रानपुर की नदी की बाढ़ से सुरक्षा के दृष्टिगत नदी की धारा को पूर्ववर्ती रूप परिवर्तित करने हेतु क्यूनेट बनाने का कार्य।	15.7	0.31	20 दिन	354	'सी' अथवा 'सी' से उच्च
20	जनपद रामपुर की तहसील बिलासपुर मे भाकड़ा वियर के दाँये तटबन्ध के किमी० 0.000 से किमी० 0.850 तक बाढ़ सुरक्षात्मक कार्य।	6.78	0.14	20 दिन	354	'सी' अथवा 'सी' से उच्च
21	जनपद रामपुर की तहसील बिलासपुर मे भाकड़ा नदी के दाँये किनारे पर स्थित ग्राम गंगापुर बहापुर की बाढ़ सुरक्षात्मक कार्य।	8.39	0.17	20 दिन	354	'सी' अथवा 'सी' से उच्च
22	जनपद रामपुर की तहसील बिलासपुर में सेजनी नदी के बाँये किनारे पर स्थित ग्राम कमुआनगला की बाढ़ सुरक्षात्मक कार्य।	8.05	0.16	20 दिन	354	'सी' अथवा 'सी' से उच्च
23	जनपद रामपुर की तहसील शाहाबाद के अन्तर्गत रामगंगा नदी के बाँये किनारे पर स्थित ग्राम जौलपुर की बाढ़ से सुरक्षा हेतु बाढ़ सुरक्षात्मक कार्य।	7.63	0.15	20 दिन	354	'सी' अथवा 'सी' से उच्च
24	जनपद रामपुर की तहसील मिलक के अन्तर्गत पीलाखार नदी के बाँये किनारे पर स्थित ग्राम हल्दुआ, की बाढ़ से सुरक्षा हेतु बाढ़ सुरक्षात्मक कार्य।	7.71	0.15	20 दिन	354	'सी' अथवा 'सी' से उच्च
25	जनपद रामपुर की तहसील विलासपुर के अन्तर्गत सेजनी नदी के दाँये किनारे पर स्थित ग्राम केमरी, की बाढ़ से सुरक्षा हेतु बाढ़ सुरक्षात्मक कार्य।	8.14	0.16	20 दिन	354	'सी' अथवा 'सी' से उच्च
26	जनपद रामपुर की तहसील मिलक के अन्तर्गत पीलाखार नदी द्वारा दाया पीलाखार नहर कि०मी० 12.750 के समीप की बाढ़ से सुरक्षा हेतु बाढ़ सुरक्षात्मक कार्य।	8.22	0.16	20 दिन	354	'सी' अथवा 'सी' से उच्च
27	जनपद रामपुर की तहसील शाहाबाद के अन्तर्गत रामगंगा नदी के बाँये किनारे पर स्थित ग्राम गंगापुर, भोपतपुर तटबंध की बाढ़ से सुरक्षा हेतु बाढ़ सुरक्षात्मक कार्य।	8.14	0.16	20 दिन	354	'सी' अथवा 'सी' से उच्च
28	जनपद रामपुर की तहसील स्वार के अन्तर्गत कोसी नदी के बायें किनारे पर स्थित लालपुर धनौरी तटबन्ध के निकट ग्राम मधुपुरा के समीप प्राचीन मन्दिर, सरकारी स्कूल, श्मशान घाट की बाढ़ से बचाने हेतु बाढ़ सुरक्षात्मक कार्य वर्ष 2026-2027.	8.18	0.16	20 दिन	354	'सी' अथवा 'सी' से उच्च

29	जनपद रामपुर की तहसील स्वार के अन्तर्गत लालपुर धनौरी बन्ध के कि०मी० 3.570 से कि०मी० 6.050 के मध्य विभिन्न रीचों में रेनकट पोटहोल्स व रैटहोल्स की मरम्मत का कार्य वर्ष 2026-2027.	3.88	0.08	20 दिन	354	'सी' अथवा 'सी' से उच्च
30	जनपद रामपुर की तहसील स्वार के अन्तर्गत लालपुर धनौरी बन्ध के कि०मी० 15.510 से कि०मी० 17.050 के मध्य विभिन्न रीचों में रेनकट पोटहोल्स व रैटहोल्स की मरम्मत का कार्य वर्ष 2026-2027.	5.72	0.11	20 दिन	354	'सी' अथवा 'सी' से उच्च
31	जनपद रामपुर की तहसील बिलासपुर के अन्तर्गत मीरापुर शादीनगर बन्ध के कि०मी० 0.395 से कि०मी० 0.710 के मध्य विभिन्न रीचों में रेनकट पोटहोल्स व रैटहोल्स की मरम्मत का कार्य वर्ष 2026-2027.	3.36	0.07	20 दिन	354	'सी' अथवा 'सी' से उच्च
32	जनपद रामपुर की तहसील स्वार के अन्तर्गत लालपुर धनौरी बन्ध के कि०मी० 7.410 से कि०मी० 9.060 के मध्य विभिन्न रीचों में रेनकट पोटहोल्स व रैटहोल्स की मरम्मत का कार्य वर्ष 2026-2027.	4.04	0.08	20 दिन	354	'सी' अथवा 'सी' से उच्च
33	जनपद रामपुर की तहसील स्वार के अन्तर्गत लालपुर धनौरी बन्ध के कि०मी० 9.550 से कि०मी० 11.050 के मध्य विभिन्न रीचों में रेनकट पोटहोल्स व रैटहोल्स की मरम्मत का कार्य वर्ष 2026-2027.	3.35	0.07	20 दिन	354	'सी' अथवा 'सी' से उच्च
34	जनपद रामपुर की तहसील स्वार के अन्तर्गत लालपुर धनौरी बन्ध के कि०मी० 18.050 से कि०मी० 19.700 के मध्य विभिन्न रीचों में रेनकट पोटहोल्स व रैटहोल्स की मरम्मत का कार्य वर्ष 2026-2027.	5.85	0.12	20 दिन	354	'सी' अथवा 'सी' से उच्च
35	जनपद रामपुर की तहसील स्वार मे घूघा नदी के दाये किनारे पर स्थित घूघा बन्ध के कि०मी० 0.000 से कि०मी० 0.195 के मध्य मरम्मत का कार्य वर्ष 2026-2027.	3.26	0.07	20 दिन	354	'सी' अथवा 'सी' से उच्च

नोट :- यह ई-निविदा/बिड सूचना, नियम व शर्तें राजकीय वेबसाइट <http://etender.up.nic.in> पर उपलब्ध है। वेबसाइट से डाईग उपलब्ध न होने की स्थिति में किसी भी कार्य दिवस में कार्यालय अधिशासी अभियन्ता, रामपुर नहर खण्ड, रामपुर में देख सकेगे।

(नवीन कुमार सिंह)  
अधिशासी अभियन्ता  
रामपुर नहर खण्ड रामपुर

## नियम एवं शर्तें :-

- यह ई-निविदा सूचना एवं प्रपत्र वेबसाइट <http://uptender.nic.in> पर उपलब्ध है। ई-निविदा के साथ उत्तर प्रदेश सिंचाई विभाग की निर्धारित श्रेणी में पंजीकरण प्रमाण-पत्र, जिलाधिकारी द्वारा निर्गत चरित्र प्रमाण-पत्र, हैसियत प्रमाण-पत्र, स्वघोषणा शपथ-पत्र (I.D.T.-1, I.D.T.-2, I.D.T.-3) अनुभव प्रमाण-पत्र, टर्नओवर सम्बन्धी प्रमाणित अभिलेख, श्रम विभाग में पंजीयन प्रमाण पत्र, जी0एस0टी0 पंजीयन प्रमाण पत्र, 90 दिवस की दर वैधता शपथ पत्र एवं अन्य आवश्यक प्रपत्रों/अभिलेखों की स्कैन्ड प्रति वेबसाइट पर निविदादाता द्वारा ऑनलाइन अपलोड करना अनिवार्य होगा। वेबसाइट से ड्राइंग उपलब्ध न हो सकने की स्थिति में कार्यालय अधिशासी अभियन्ता, रामपुर नहर खण्ड रामपुर से ड्राइंग आदि प्राप्त की जा सकेगी। निविदादाता किसी भी प्रकार की जानकारी कार्यालय अधिशासी अभियन्ता, रामपुर नहर खण्ड रामपुर से प्राप्त/अवलोकन कर सकता है। सभी आवश्यक अभिलेखों की स्कैन्ड प्रति ऑनलाइन अपलोड न होने की स्थिति में निविदा पर विचार नहीं किया जायेगा। निविदा खोलते समय कोई भी प्रपत्र/अभिलेख व्यक्तिगत रूप से प्रस्तुत किये जाने पर स्वीकार नहीं किये जायेंगे, मात्र ऑनलाइन अपलोडेड अभिलेखों के आधार पर ही निविदा निर्णीत की जायेगी।
- पंजीकरण प्रमाण-पत्र की मूल प्रति, जिलाधिकारी द्वारा निर्गत चरित्र प्रमाण-पत्र (I.D.T.-1), हैसियत प्रमाण-पत्र (I.D.T.-2), स्वघोषणा शपथ-पत्र (I.D.T.-3), की मूल प्रति, अनुभव प्रमाण पत्र की मूल प्रति, टर्नओवर से सम्बन्धित अभिलेखों की प्रति, श्रम विभाग में पंजीयन प्रमाण पत्र की प्रति जी0एस0टी0 पंजीयन की प्रति, 90 दिवस की दर वैधता शपथ पत्र की प्रति न्यूनतम निविदादाता के रूप में निविदा स्वीकार होने के पश्चात् उपलब्ध कराना अनिवार्य है तथा समस्त अभिलेखों/प्रपत्रों की स्कैन्ड कॉपी निविदादाता द्वारा निविदा के साथ ई-टेन्डर पोर्टल पर अपलोड करना अनिवार्य होगा।
- ज्वाइन्ट वेन्चर की निविदा किसी भी दशा में स्वीकार नहीं की जायेगी।
- सशर्त निविदा किसी भी दशा में मान्य नहीं होगी।
- निविदादाता/बिडर द्वारा निविदा डालते समय प्रक्रिया की पूर्ण जानकारी/ट्रेनिंग न होने अथवा किसी अन्य कारण से शर्तों को पूर्ण न कर पाने/बाधित हो जाने के कारण निविदा न पडने पर विभाग की कोई जिम्मेदारी नहीं होगी।
- उपरोक्त कार्यों की निविदायें धनावंटन की प्रत्याशा में आमंत्रित की जा रही हैं। धनावन्टन कम प्राप्त होने पर अथवा प्राप्त न होने की दशा में, अथवा प्रशासनिक/वित्तीय स्वीकृत प्राप्त न होने की दशा में अथवा अन्य किसी कारण से उक्त निविदा को बिना कारण बतायें निरस्त किया जा सकता है। किसी एक व एक से अधिक अथवा समस्त निविदाओं को बिना कारण बताये निरस्त किया जा सकता है। कार्यों पर धनावंटन प्राप्त होने पर उपलब्ध धन से तत्समय कार्य की महत्ता के अनुसार कार्य संपादित कराया जायेगा।
- समस्त निविदादाताओं को सुझाव दिया जाता है कि निविदा डालने से पूर्व समस्त विभागीय नियमों व शर्तों का संज्ञान लेते हुए कार्य स्थल का निरीक्षण कर कार्य स्थिति एवं परिस्थिति से भलीभांति भिन्न होने के उपरान्त ही निविदा डालें।
- **Cost of Bid Document (non-refundable)**- To be deposited in the account of UP e-tender online account through e-tender portal by Internet Banking only. All concerned please note that bidding process will not move onward if the Bid Document's Cost (Tender Fee) is not paid through e-tender portal by Internet Banking.
- **Bid Security (EMD)**- Bids must be accompanied with security of the amount Specified for work. Bid security will be deposited in the account of UP e-tender online account through e-tender portal by Internet Banking only. All concerned please note that bidding process will not move onward if the Bid Security (EMD) is not paid through e-tender portal by Internet Banking. No other form of bid security will be accepted. Uploading of proof of online payment is not mandatory
- Technical Evaluation will be done by Tender Committee as per the procedure described in detailed bid document and result will be uploaded online. Financial bid will be opened of only qualified bidders of technical bid. If there is some technical problem then comparative chart would be prepared manually. Date of opening of financial bid will be decided on the basis of total no. of bids submitted & notified on notice board & e-portal.

- प्रत्येक निविदादाता को टेक्निकल बिड के साथ रू0 100/- के नानजुडिशियल स्टेम्प पेपर पर रू0 1/- का रसीदी टिकट लगाकर निर्धारित प्रारूप पर शपथ-पत्र लिखना होगा कि दरें 90 दिवस तक मान्य होंगी। इससे पहले निविदा/आफर वापस लेने पर धरोहर धनराशि जब्त कर ली जायेगी। इस शपथ पत्र की स्कैन प्रति ऑनलाइन निविदा के साथ अपलोड करना अनिवार्य होगा अन्यथा की स्थिति में, निविदा पर विचार नहीं किया जायेगा। न्यूनतम निविदादाता के रूप में निविदा स्वीकार होने के पश्चात् मूल अभिलेख उपलब्ध करवाना अनिवार्य होगा। नियमानुसार जीएसटी आदि प्रचलित टैक्स देना होगा। अनुबन्ध के समय शेष जमानत की धनराशि भी जमा करनी होगी। तालिका में इंगित लाट वर्णित कार्य की अनुमानित लागत में जी0एस0टी0 सम्मिलित नहीं है। निविदादाता द्वारा निविदा में दी गयी दरें जी0एस0टी0 रहित (Excluding Cost of G.S.T.) ही मान्य होंगी। जी0एस0टी0 विभाग द्वारा नियमानुसार अलग से देय होगी।
- शासनादेश सं0-01/2018/3070/78-2-2018/42 आई0टी0/2017 (22) दिनांक 03.01.2018 के बिन्दु संख्या 04 के अनुसार ई-टेंडरिंग के समय निविदादाताओं द्वारा निर्धारित प्रपत्रों के अतिरिक्त मूल अभिलेखों की स्कैन कापी अपलोड किया जाना अनिवार्य होगा अन्यथा निविदा पर विचार नहीं किया जायेगा। निविदा स्वीकार होने पर मूल अभिलेख व्यक्तिगत रूप से कार्यालय अधिशासी अभियन्ता, रामपुर नहर खण्ड, रामपुर को निविदादाता द्वारा प्रस्तुत किये जायेंगे। निविदा स्वीकार होने के उपरान्त निविदादाता द्वारा आवश्यक अभिलेखों को मूल रूप में प्रस्तुत नहीं किये जाने पर निविदादाता के विरुद्ध वाद दायर कर कानूनी कार्यवाही की जायेगी तथा उसका रजिस्ट्रेशन निरस्त कर काली सूची में डालने की कार्यवाही भी की जायेगी।
- ई-पोर्टल पर प्राप्त सभी निविदा प्रपत्रों का पहले निरीक्षण किया जायेगा कि निविदादाता द्वारा उत्तर प्रदेश सिंचाई एवं जल संसाधन विभाग में वर्गीकृत श्रेणी में पंजीयन प्रमाण पत्र, IDT 1, IDT 2, IDT 3, अनुभव प्रमाण-पत्र, श्रम विभाग में पंजीयन प्रमाण पत्र, जी0एस0टी0 पंजीयन प्रमाण पत्र, 90 दिवस की दर वैधता शपथ पत्र, टर्नओवर सम्बन्धी अभिलेख आदि ठीक-ठीक स्कैन कर अपलोड किये गये हैं या नहीं। इनमें किसी प्रकार की कमी या असंतोषजनक होने की स्थिति में निविदादाता की विड को Nonresponsive मानते हुए विचार नहीं किया जायेगा। इस सम्बन्ध में निविदा समिति का निर्णय अन्तिम व बाध्यकारी होगा।
- विभाग द्वारा निविदादाता को अनुबन्ध गठन हेतु स्वीकार पत्र निर्गत किये जाने पर, निविदादाता को मूल अभिलेखों/प्रपत्रों/जमानत धनराशियों से सम्बन्धित प्रपत्रों सहित विभाग द्वारा निर्धारित समय सीमा के अन्दर कार्यालय में उपस्थित होकर अनुबन्ध गठित कराया जाना अनिवार्य है अन्यथा की स्थिति में उनके द्वारा निविदा के समय ऑन-लाइन जमा की गयी धरोहर धनराशि जब्त कर ली जायेगी, जिसके लिए निविदादाता स्वयं उत्तरदायी होगा।
- निविदा प्रपत्र, वैयक्तिक मालिकाना फर्म, भागीदारी फर्म, पब्लिक/प्राइवेट कम्पनी द्वारा निम्न जानकारी की स्कैन प्रतिलिपि को प्री-क्वालीफिकेशन टेक्निकल बिड के साथ ई-टेंडरिंग पोर्टल पर अपलोड किया जाना अनिवार्य है :-
  - (i) उत्तर प्रदेश सिंचाई एवं जल संसाधन विभाग, की वर्गीकृत श्रेणी में पंजीकरण प्रमाण पत्र।
  - (ii) जिलाधिकारी द्वारा निर्गत चरित्र प्रमाण पत्र (IDT-1)। पार्टनरशिप फर्म की स्थिति में सभी पार्टनरों का जिलाधिकारी द्वारा निर्गत चरित्र प्रमाण पत्र अपलोड करना अनिवार्य होगा।
  - (iii) जिलाधिकारी द्वारा निर्गत हैसियत प्रमाण पत्र (IDT-2)।
  - (iv) निर्धारित प्रारूप पर स्व घोषणा शपथ पत्र (IDT-3) जो कि रू0 100/- स्टाम्प पेपर पर स्वयं के पासपोर्ट साइज फोटो सहित नोटरी द्वारा सत्यापित हो।
  - (v) निर्धारित प्रारूप पर 90 दिवस की दर वैधता शपथ पत्र।
  - (vi) पैन कार्ड।
  - (vii) आयकर चुकता प्रमाण पत्र।
  - (viii) समान प्रकृति के कार्य का अनुभव प्रमाण पत्र।
  - (ix) गत वर्षों की बैलेन्स सीट।
  - (x) श्रम विभाग द्वारा निर्गत पंजीकरण प्रमाण पत्र।
  - (xi) वर्तमान में चल रहे कार्यों की सूची।
  - (xii) सी0ए0 द्वारा प्रमाणित टर्नओवर एवं बिड कैपेसिटी सर्टिफिकेट।
  - (xiii) जी0एस0टी0 पंजीयन प्रमाण पत्र।

- कोई राजपत्रित अभियन्ता अथवा राजपत्रित अधिकारी जो कि राज्य सरकार एवं केन्द्र सरकार के प्रशासकीय विभाग में कार्यरत हों, सेवानिवृत्ति की अवधि के दो वर्ष उपरान्त तक, बिना सरकार के अनुमति के, ठेकेदारी के काम के लिए प्रतिबन्धित होंगे। ऐसी स्थिति में यदि यह पाया जाता है कि ठेकेदार अथवा उसके प्रतिनिधि/कर्मचारी ने निविदा डालने से पहले राज्य सरकार से अनुमति नहीं प्राप्त की है, तो उनका ठेका निरस्त किया जा सकता है।
- उपरोक्त दस्तावेजों का सत्यापन न्यूनतम निविदादाता के रूप में निविदा स्वीकार होने के पश्चात् निविदादाता को व्यक्तिगत रूप से प्रस्तुत होकर करवाना होगा एवं उपरोक्त प्रमाण-पत्रों में किसी भी प्रमाण-पत्र के गलत पाये जाने की स्थिति में निविदादाता के विरुद्ध वाद दायर कर कानूनी कार्यवाही की जायेगी तथा उसका रजिस्ट्रेशन निरस्त कर काली सूची में डालने की भी कार्यवाही की जायेगी।
- पिछले तीन वित्तीय वर्षों में से, किसी एक वित्तीय वर्ष में, निविदा फर्म/निविदादाता का वार्षिक टर्नओवर, लाट में वर्णित कार्य जिसके लिये निविदा आमंत्रित की गयी है, के अनुमानित लागत के 30 प्रतिशत से कम नहीं होना चाहिये।
- निविदादाता को विगत पांच वर्षों में सफलता पूर्वक सम्पादित किये गये सिविल कार्यों के सम्बन्ध, में निम्न विवरणानुसार अनुभव प्रमाण-पत्र प्रस्तुत करना अनिवार्य होगा। अनुभव प्रमाण-पत्र अधिशासी अभियन्ता अथवा अधिशासी अभियन्ता से उच्च स्तर के अधिकारी द्वारा निर्गत होना अनिवार्य है। कार्य सम्पादन के सम्बन्ध में निम्नानुसार अनुभव अर्हता रखने वाले निविदादाता/निविदा फर्म ही निविदा के लिये पात्र होंगे।

(क) समान प्रकृति के सफलतापूर्वक सम्पादित किये गये तीन कार्यों जिसमें प्रत्येक कार्य की लागत निविदा की लाट में वर्णित कार्य के अनुमानित मूल्य के 40 प्रतिशत से कम नहीं होनी चाहिए।

अथवा

(ख) समान प्रकृति के सफलतापूर्वक सम्पादित किये गये दो कार्यों जिसमें प्रत्येक कार्य की लागत निविदा की लाट में वर्णित कार्य के अनुमानित मूल्य के 50 प्रतिशत से कम नहीं होनी चाहिए।

अथवा

(ग) समान प्रकृति के सफलतापूर्वक सम्पादित किये गये एक कार्य जिसकी लागत निविदा की लाट में वर्णित कार्य के अनुमानित मूल्य के 80 प्रतिशत से कम नहीं होनी चाहिए।

समान प्रकृति के कार्यों का आशय निविदा में वर्णित लॉट संख्या के समक्ष अंकित कार्य से है। बिड अपलोड करने से पूर्व निविदादाता टेण्डर डाक्यूमेन्ट का भली-भांति अध्ययन कर लें।

- कार्यस्थल की आवश्यकतानुसार कार्य की मात्रा घट-बढ़ सकती है, जिसके लिए ठेकेदार का कोई क्लेम मान्य नहीं होगा।
- निविदादाता को उपरोक्तानुसार कार्यस्थल की पूर्ण जानकारी निविदा डालने से पूर्व स्वयं प्राप्त करनी होगी। निविदा प्रपत्र एवं तत्सम्बन्धी कोई भी जानकारी सम्बन्धित कार्यालय अधिशासी अभियन्ता रामपुर नहर खण्ड रामपुर से किसी भी कार्य दिवसों में प्राप्त की जा सकती हैं।
- इस निविदा के किसी एक लाट अथवा सभी लाटों को बिना कारण बताये पूर्ण अथवा आंशिक रूप से निरस्त करने का अधिकार अधोहस्ताक्षरी के पास सुरक्षित होगा।
- यह संज्ञान में आने पर कि किसी निविदादाता द्वारा किसी अन्य सम्भावित निविदादाता को इस निविदा प्रक्रिया में भाग लेने एवं निविदा डालने से रोका गया हो या धमकी दी गयी हो तो ऐसे ठेकेदार के साथ यदि अनुबन्ध हो भी गया हो तो उसके साथ किया गया अनुबन्ध निरस्त किया जा सकता है।
- निविदादाता को 10 रु0 के स्टाम्प पेपर पर अपने टैक्निकल स्टाफ का विवरण दिया जाना अनिवार्य होगा, जिनकी डिग्री/डिप्लोमा की स्कैन्ड प्रति अपलोड करनी होगी।
- निविदादाता को 10 रु0 के स्टाम्प पेपर पर नोटरी द्वारा सत्यापित कराकर संबंधित कार्य में प्रयुक्त की जाने वाली स्वयं की मशीनरी का विवरण लिखना होगा अथवा यदि निविदादाता द्वारा किराये पर मशीनरी लेकर कार्य सम्पादित कराया जायेगा तो उन मशीनरी के मालिक के साथ 10 रु0 के स्टाम्प पेपर पर नोटरी द्वारा सत्यापित कराकर मशीनरी किराये पर लेने हेतु अनुबन्ध लिखना होगा।

- कोई निविदादाता जो राज्य सरकार द्वारा काली सूची में दर्ज हो वह निविदा प्रक्रिया में भाग नहीं ले सकेगा।
- राज्य बार काउन्सिल में पंजीकृत कोई भी अधिवक्ता निविदा प्रक्रिया में भाग नहीं ले सकेगा।
- निविदादाता एक कार्य की केवल एक ही निविदा कर सकेगा एवं डाल सकेगा परन्तु निविदादाता समस्त लॉटों हेतु निविदा डालने के लिए स्वतन्त्र होगा।
- यदि कोई निविदादाता निर्धारित विधि एवं प्रक्रिया के विरुद्ध अनुबन्ध करने हेतु सक्षम प्राधिकारी पर दबाव/असम्यक असर डालता है तो प्रश्नगत् निविदादाता के न्यूनतम निविदादाता होने की स्थिति में भी उसकी निविदा निरस्त की जा सकेगी।
- विशेष परिस्थितियों में निविदा खोलने की तिथि/समय अथवा निविदा से सम्बन्धित किसी भाग में यदि कोई परिवर्तन होता है तो इसकी सूचना ऑनलाइन/नोटिस बोर्ड पर उपलब्ध करा दी जायेगी। निविदा की प्रक्रिया ऑनलाइन शुरू होने के पश्चात् किसी भी लाट के सम्बन्ध में समस्त अग्रिम कार्यवाही सिर्फ ऑनलाइन ही होगी, प्रत्येक निविदादाता की यह जिम्मेदारी होगी कि वह निविदा की प्रक्रिया शुरू होने के पश्चात् ऑनलाइन निविदा के सम्बन्ध में होने वाले किसी भी संशोधन/शुद्धि पत्र की जानकारी प्राप्त करता रहे, अन्यथा की स्थिति में सम्पूर्ण जिम्मेदारी निविदादाता की होगी।
- अनुबन्ध गठित होने के पश्चात् भी, यदि यह तथ्य संज्ञान में आता है कि निविदादाता द्वारा किसी भी स्तर पर नियम एवं शर्तों का उल्लंघन किया गया है तो ऐसे अनुबन्ध को सक्षम अधिकारी द्वारा सकारण आदेश प्रख्यापित कर निरस्त कर दिया जायेगा तथा जमानत धनराशि जब्त कर ली जायेगी एवं द्वितीय न्यूनतम बालीदाता के नाम अनुबन्ध गठित किये जाने की कार्यवाही की जायेगी।
- निविदा से सम्बन्धित विस्तृत एवं अन्य जानकारी कार्यालय अधिशासी अभियन्ता रामपुर नहर खण्ड रामपुर से भी प्राप्त की जा सकती है।
- निविदादाता द्वारा जिस कार्य के लिए निविदा डाली जा रही है उस कार्य का वर्क प्रोग्राम अनिवार्य रूप से देना होगा।
- यदि ठेकेदार द्वारा किसी भी प्रकार कार्य प्राप्त करने के लिए कार्य की अनुमानित लागत से अत्यन्त कम दरें दे दी जाती हैं तो ऐसी स्थिति में यदि सक्षम अधिकारी को यह आशंका हो कि ठेकेदार द्वारा साभिप्राय कम दरें दी जा रही हैं और इस प्रकार गुणवत्ता के साथ मानकों के अनुरूप कार्यपूर्ण किया जाना सम्भव नहीं हो पायेगा तो सक्षम अधिकारी को यह अधिकार होगा कि वह निविदादाता से कम दरें देने का विस्तृत विवरण मांगे। यदि आशंका की पुष्टि हो जाती है कि निविदादाता द्वारा साभिप्राय ऐसा किया जा रहा है तो गुण दोष (Merit) के आधार पर सक्षम अधिकारी द्वारा सकारण आदेश प्रख्यापित कर निविदा निरस्त की जा सकती है।
- ई-निविदा की विस्तृत शर्तें निविदा प्रपत्र के साथ उपलब्ध होगी। निविदादाता को निविदा प्रपत्र का भली-भांति अध्ययन करने के उपरान्त ही बिड अपलोड करना आवश्यक है। निविदादाता द्वारा निविदा प्रपत्र के सभी पृष्ठ डाउनलोड कर अपलोड करना वांछनीय होगा। निविदा के फार्म-112 में निविदादाता को निर्धारित स्थान पर हस्ताक्षर (मोहर सहित जिसमें फर्म का नाम व पूर्ण पता अंकित हो) करने होंगे। फार्म-112 व अन्य प्रपत्रों पर निर्धारित स्थान पर हस्ताक्षर न होने अथवा सम्पूर्ण निविदा प्रपत्र का प्रत्येक पृष्ठ अपलोड न किये जाने की दशा में निविदा अमान्य मानी जाएगी, जिसके लिए निविदादाता स्वयं उत्तरदायी होगा। इस सम्बन्ध में निविदा समिति का निर्णय अन्तिम व बाध्यकारी होगा।
- निविदादाता को IDT-1, IDT-2, IDT-3, निर्धारित श्रेणी का पंजीयन प्रमाण पत्र, टर्न ओवर, अनुभव प्रमाण पत्र, जी0एस0टी0 पंजीयन, श्रम विभाग में पंजीयन प्रमाण पत्र, 90 दिवस की दर वैधता शपथ पत्र एवं अन्य आवश्यक प्रमाण पत्रों की सत्यापित प्रतियां न्यूनतम निविदादाता के रूप में निविदा स्वीकार होने के पश्चात् अधिशासी अभियन्ता के कार्यालय में निर्धारित की गयी तिथि को जमा करने होंगे, जिसकी सूचना निविदादाता को अलग से दी जायेगी, अन्यथा उनकी बिड को Unresponsive मानते हुए कोई विचार नहीं किया जायेगा तथा विभाग में उनके पंजीकरण का निरस्तीकरण एवं अन्य वैधानिक कार्यवाही जो कि नियमानुसार अनुमन्य होगी, की जायेगी। उपरोक्त समस्त अभिलेखों व प्रमाण पत्रों की पठनीय स्कैन कापी बिड के साथ ई-टेंडर पोर्टल पर अपलोड करनी अनिवार्य होगी।
- निविदा में सम्मिलित कार्य आवंटित बजट के अन्तर्गत ही कराये जायेंगे। किसी कार्य के विरुद्ध धनावंटन न प्राप्त होने अथवा आवश्यक स्वीकृतियों के न प्राप्त होने पर निविदा निरस्त किये जाने की स्थिति में किसी भी प्रकार का दावा मान्य नहीं होगा।

- ऐसे निविदादाता जिनका कोई सगा सम्बन्धी (First blood relation and their spouses), जैसे कि खण्डीय लेखाधिकारी, अवर अभियन्ता, सहायक अभियन्ता, अधिशासी अभियन्ता, अधीक्षण अभियन्ता के पद पर आसीन होंगे, को कार्य करने की अनुमति नहीं प्रदान की जायेगी। निविदादाता को इस सम्बन्ध में नाम तथा पद सहित कार्यकारी रिश्तेदारी पर एफीडेविट प्रस्तुत करना अनिवार्य होगा, जोकि खण्ड अथवा मण्डल में कार्यरत हैं।
- अनुबंध के समय निविदादाता को इस आशय का घोषणापत्र देना होगा कि उसके द्वारा अनुबंध को सबलेट नहीं किया जायेगा।
- प्रस्तावित कार्यस्थल पर इंजीनियर इन्चार्ज के निर्देशानुसार कार्य कराना होगा।
- सामग्री उपलब्ध कराने के समय पर, सामग्री की तकनीकी विशिष्टियाँ, सामग्री की गुणवत्ता सुनिश्चित करने हेतु टेस्टिंग रिपोर्ट आदि उपलब्ध कराना होगा।
- सामग्री की टेस्टिंग विभाग द्वारा रेन्डम बेस पर किसी भी तकनीकी संस्थान से करायी जायेगी। टेस्ट रिपोर्ट में सामग्री यदि मानक अनुरूप नहीं पायी जाती है तो इस दशा में उपलब्ध करायी गयी सामग्री को रिजेक्ट कर दिया जायेगा तथा अधोमानक सामग्री के संबंध में कोई भुगतान देय नहीं होगा। इस प्रकार रिजेक्ट की गयी सामग्री को निर्धारित समयावधि के अन्तर्गत कार्य स्थल से हटाया जाना अनुबन्धित फर्म के लिए अनिवार्य होगा।
- नियमानुसार स्टैम्प ड्यूटी, जी0एस0टी0, रॉयल्टी, आय कर व अन्य प्रचलित टैक्स ठेकेदार द्वारा देय होगा। रॉयल्टी, जी0एस0टी0 व अन्य करों के सम्बन्ध में प्रचलित नियमों/शासनादेशों के अनुसार अनुपालन किया जाना ठेकेदार फर्म के लिए अनिवार्य होगा। निविदत्त दरें जी0एस0टी0 रहित होंगी। विभाग द्वारा ठेकेदार फर्म को, प्रचलित नियमों/शासनादेशों के अनुसार, जी0एस0टी0 का भुगतान अलग से किया जायेगा।
- निविदत्त कार्यों का सम्पादन एवं कार्यों में प्रयुक्त होने वाली सामग्री का, विभागीय विशिष्टियों एवं मानक के अनुरूप होना अनिवार्य होगा। टी0ए0सी0/ऑडिट अथवा अन्य विभागीय अधिकारियों द्वारा निर्धारित की गयी वसूली सम्बन्धित ठेकेदार/फर्म द्वारा वहन किया जायेगा।
- अपलोड किये गये सभी मूल अभिलेखों की स्कैन कॉपी स्पष्ट एवं पठनीय होनी चाहिए क्योंकि मूल्यांकन में अभिलेखों की जांच हेतु इन्हें डाउनलोड/प्रिन्ट किया जाना है। डाउनलोडेड अभिलेखों के प्रिन्ट पठनीय न होने की स्थिति में यदि सम्बन्धित निविदादाता को अपात्र किया जाता है तो इसके लिये निविदादाता स्वयं उत्तरदायी होगा।

(नवीन कुमार सिंह)  
अधिशासी अभियन्ता  
रामपुर नहर खण्ड रामपुर

# CREDENTIALS OF TENDERER

(To be filled by the Tenderer)

1. Name of Tenderer :- .....
2. Permanent Address :- .....  
.....
3. Present Postal Address :- .....

4. State if you are approved Contractor of the C.P.W.D., State P.W.D., State Irrigation Department, Railway and / or M.E.S. and if so, copy of registration certificate should be attached.

5. Particulars of previous contract successfully executed should be entered in the form below.

Sl. No.	Name of Department	Name & Description of work	Value Rs.	Period of execution	
				From	To
1	2	3	4	5	6

6. Reference / Certificate from your Bankers about your financial position should be attached.
7. List of machinery and equipment which you intend to use on this work to be given in attached Proforma-I.
8. In case tenderer is a firm, enclose photostate / attested copy of partnership deed & Certificate of registration of firm.
9. Certificate :
  - (a) I / We am / are not debarred from tendering for contracts of central / state Govt. departments.
  - (b) I / We hereby certify that information given above is correct. If at any stage, it is found to be incorrect. I / We understand that the contract will be liable to be terminated / rescinded and action could be taken against me / us by the employer.

Dated : .....

Signature of Tendered

Place : .....

# Certificate of Relationship

To,

The Executive Engineer,  
Rampur Canal Division Rampur

Sir,

It is certified that except the person noted below, none of my relatives is employed in Irrigation Department, Uttar Pradesh.

Name

Designation

Place of Posting

Dated : .....

Signature of Contractor .....

Place : .....

Full Address .....

.....  
.....

**N.B.:** The following comes under the definition of relationship :-

1. Father, Mother, Sister, Brother, Brother-in-law, Daughter, Father-in-law, Mother-in-law, First cousin of self or wife. The list is illustrative and not exhaustive.

Contractor

**DECLARATION**

We .....

.....

.....

.....

hereby declare that no work shall be taken in hand by me or by my authorized agent unless a proper work order in writing is issued to me by Executive Engineer / S.D.O. In case of default on my part, I fully understand that my security deposits will be forfeited and our name will be removed from the list of approved contractor.

Dated : .....

Signature of Contractor .....

Place : .....

Full Address .....

.....

.....

# AGREEMENT

Tender invited by Executive Engineer Rampur Canal Division Rampur

Tender of .....

Tender Notice No. & Date 01/EE/2026-27

Name of Tenderer .....

In consideration of the Governor of Uttar Pradesh having treated the tenderer to be an eligible person whose tender may be considered, the tenderer hereby agreed the condition that the proposals in response to the above invitation shall not be withdrawn with in three months from the date of opening of tender, also to the condition that if thereafter the tenderer does withdraws his proposal within the said period the earnest money deposited by him may be forfeited by the Government of Uttar Pradesh in description of the later. And the tenderer hereby also declares that if subsequent to the submission of his tender the tenderer amends, alters or modifies the contents of his tender which are not acceptable to the employer the tenderer shall, for the purpose of the aforesaid conditions, be deemed to have withdrawn his proposal.

Signed this ..... day of

Signed by Tenderer .....

The individual, who is proprietor of a firm should furnish the description of the party as under :-

Shri ..... S/o Shri ..... R/o .....

Carrying on business under the firms name of M/s .....

In case of a partnership firm the description of the party should be as under  
M/s ..... a  
firm within the meaning of the Indian Partnership Act and having their office at  
..... are consisting of the following partners :-

1. Shri ..... S/o ..... R/o .....

2. Shri ..... S/o ..... R/o .....

3. Shri ..... S/o ..... R/o .....

# **GENERAL CONDITIONS OF CONTRACT**

## **1.0 DEFINITIONS**

- (1) In the Contract, as hereinafter defined, the following words and expression shall have the meanings hereby assigned to them, except where the context otherwise requires:—
- a) 'Employer' means the Governor of Uttar Pradesh and the legal successors in title to the Employer, acting through the Executive Engineer, Rampur Canal Division, Rampur or his authorized representative.
  - b) 'Contractor' means the person or persons, firm or company whose tender has been accepted by the Employer and includes the Contractor's personal representatives, successors and permitted assigns.
  - c) Chief Engineer shall mean the Chief Engineer, Eastern Gnaga, Moradabad.
  - d) 'Engineer-in-Charge' or 'Engineer' means the Executive Engineer, Rampur Canal Division, Rampur or the Engineer appointed from time to time by the Employer and notified in writing to the Contractor to act as Engineer for the purpose of the Contract in place of the Engineer so designated.
  - e) 'Engineer-in-Charge's representative' or 'Engineer's representative' means any resident engineer or assistant of the Engineer of works appointed from time to time by the Employer or the Engineer to perform the duties set forth in writing whose authority shall be notified in writing to the Contractor by the Engineer-in-Charge.
  - f) 'Works' shall include both Permanent Works and Temporary Works.
  - g) 'Contract' means the Conditions of Contract, specification, Drawings, priced Bill of Quantities, Schedule of Rates and Prices, if any, Tender, Letter of Acceptance and the Contract Agreement, if completed.
  - h) 'Contract Price' means the sum named in the Letter of Acceptance, subject to such additions thereto or deductions there-from as may be made under the provisions hereinafter contained.
  - i) 'Constructional Plant' means all appliances or a thing of whatsoever nature required in or about the execution or maintenance of the Works but does not include materials or other things intended to form or forming part of the Permanent Works.
  - j) 'Temporary Works' means all temporary works of every kind required in or about the execution or maintenance of the works.
  - k) 'Permanent Works' means the permanent works to be executed and maintained in accordance with the Contract.
  - l) 'Specification' means the specification referred to in the Tender and any modification thereof or addition thereto as may from time to time be furnished or approved in writing by the Engineer.
  - m) 'Drawings' means the drawing referred to in the Specification and any modification of such drawings approved in writing by the Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.
  - n) 'Site' means the land and other places on, under, in or through which the Permanent Works or Temporary Works designed by the Engineer are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the Site.
  - o) 'Approved' means approved in writing, including subsequent written confirmation of previous verbal approval and 'approval' means approval in writing, including as aforesaid.
  - p) 'Government' means Government of Uttar Pradesh (India) Department of Irrigation.

- q) 'I.S.S.' means Indian Standard Specifications published by Bureau of Indian Standard (B.I.S.).
- r) 'Day' means a day from midnight to midnight.
- s) 'Week' means seven consecutive days.
- t) 'Month' means from the beginning of a given date of a calendar month to the end of the preceding date of the next calendar month.
- u) 'Quarter' means a period of 3 months reckoning from the 1st date of January, April, July and October and counted to the last date of March, June, September and December respectively.
- v) 'Rupees' means Rupees of Indian Currency.

## **1.1 INTERPRETATIONS**

- (1) Words importing the singular only also include the plural and vice versa where the context so requires, 'he' includes 'she' and vice versa unless this is repugnant to the context.
- (2) Wherever the term 'Specification' is used apart from a specified Standard Specification, it shall mean the specification or plan prepared for a particular site as instructions to the Contractor in executing that item of work.
- (3) The headings in these Conditions of Contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.
- (4) The word 'cost' shall be deemed to include overhead costs whether on or off the site.
- (5) For the purpose of these documents the terms 'bid / Tender', 'bidder / Tenderer', 'Bidding / Tendering' and other similar expressions are synonymous.

## **2.0 GENERAL**

The rates given by the contractor will remain firm during the currency of the agreement.

No claim shall be entertained for damage to works or materials or the loss suffered by the contractor owing to floods, rains, fluctuations in market rates or labour and materials or any other reason occurring prior to the final measurement and taking over of the work or part thereof by the Engineer-in-Charge.

## **3.0 TOOLS, PLANTS AND EQUIPMENTS**

The contractor shall arrange for his own machinery and equipments required for timely and successful completion of the work as per specification. Government equipment, if available may be supplied on the discretion of the Engineer-in-Charge to the contractor from the Government godown on written request of the contractor. The contractor shall give receipt for the same as his acknowledgement.

The carriage of the equipments to work site and back to Government godown after use shall be done by the contractor at his own cost. The terms and conditions for hire of the equipment shall be fixed by the Engineer-in-Charge.

#### **4.0 TIME FOR COMPLETION**

The time for completing the work is including rainy season. The progress of the work shall be maintained generally as per following time schedule.

<b>Sl.No.</b>	<b>Time</b>	<b>Progress of work</b>
1.	Up to ¼ of the total time	25%
2.	Up to ½ of the total time	50%
3.	Up to ¾ of the total time	75%
4.	Up to full time	100%

The liquidated damage will be imposed on the contractor @ 0.25% of the cost of contract/day subject to the maximum 10% of the contract value in case the work progress is delayed from the schedule of progress written above.

#### **5.0 CONSTRUCTION PROGRAMME**

The contractor shall submit a detailed month wise, construction programmed of completion to suit the progress of contract as given earlier for the entire contract period including quarterly requirement of materials to be supplied by the department, within fourteen days after the date of notice to proceed with the work. The programmed may be reviewed & revised every month to plan timely action to make up the slippages which occurred in the previous month.

#### **6.0 CURRENCY OF PAYMENT**

Payment will be made in the Indian currency in which the price has been stated in the bid.

#### **7.0 ASSIGNMENT AND SUBLETTING OF CONTRACT**

- (i) Assignment of the contract is not permissible.
- (ii) The contractor shall not without the written consent of the Engineer-in-Charge sublet any portion of the contract. Any subletting shall in no way absolve the contractor of any of his responsibilities under this contract.

#### **8.0 PLANT, TEMPORARY WORKS AND MATERIALS**

The contractor shall provide at his own expense all constructional plant, temporary works and materials required for the execution of the work. All constructional plant, temporary works and materials provided by the contractor shall, when brought on to the site, be deemed to be exclusively intended for the execution of the works and the contractor shall not remove the same or any part thereof, without the consent, in writing, of the Engineer-in-Charge.

#### **9.0 GENERAL OBLIGATION OF THE CONTRACTOR**

##### **(A) General responsibilities:**

- (a) The contractor shall furnish the postal address of his site office. Any notice or instruction to be given to the contractor under the terms of the contract shall be deemed to have served if it has been delivered to his authorized agent or representative at site, or sent by registered letter to the site office, or to the address of the firm last provided by the contractor.

- (b) The contractor shall, subject to the provisions of the contract, and with due care and diligence, execute and maintain the works and provide all labour, including the supervision thereof, materials, constructional plant and all other things, whether of a temporary or permanent nature, required in and for such execution and maintenance, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the contract.
- (c) The contractor shall take responsibility for the adequacy, stability and safety of all site operations and methods of construction, provided that the contractor shall not be responsible, except as may be expressly provided in the contract, for the design or specification of the permanent works, or for the design or specification of any temporary works prepared by the Engineer-in-Charge.
- (d) The contractor shall promptly inform the Employer and Engineer-in-Charge of any error, omission, fault and other defect in the design or specifications for the works which are discovered when reviewing the contract documents or in the process of execution of the works.

**(B) Contract Agreement:**

The contractor, within 30 days of receipt of form of agreement annexed (with such modifications as may be necessary) shall enter into and execute a contract agreement to be prepared and completed at the cost of the employer.

**(C) Inspection of site:**

The Employer shall have made available to the contractor with the Tender documents such data on hydrological and subsurface conditions as shall have been obtained by or on behalf of the Employer from investigations undertaken relevant to the works and the tender shall be deemed to have been based on such data, but the contractor shall be responsible for his own interpretation thereof.

The contractor shall also be deemed to have inspected and examined the site and its surroundings and information available in connection therewith and to have satisfied himself, so far as is practicable, before submitting his tender, as to the form and nature thereof, including the sub-surface conditions, the hydrological and climatic conditions, the extent and nature of work and materials necessary for the completion of the work, the means of access to the site and the accommodation he may require and, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his tender.

**(D) Sufficiency of Tender:**

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced bill of Quantities and the Schedule of Rates and prices, if any, which tender rates and prices shall, except in so far as it is otherwise provided in the contract, cover all his obligations under the contract and all matters and things necessary for the proper execution and maintenance of the works.

**(E) Work to be to the satisfaction of the Engineer-in-Charge:**

So far as it is legally or physically possible, the contractor shall execute and maintain the work in strict accordance with the contract to the satisfaction of the Engineer-in-Charge and shall comply with and adhere strictly to the Engineer's instructions and directions on any matter whether mentioned in the contract or not, touching or concerning the works. The Contractor shall take instruction and directions only from the engineer or from engineer's representative.

**(F) Watching and Lighting:**

The contractor shall in connection with the works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the Engineer or the Engineer's Representative, or by any duly constituted authority, for the protection of the works, or for the safety and convenience of the public or others.

**11.0 PURPOSE OF DRAWINGS AND SPECIFICATIONS AND PERFORMANCE THERE TO**

The contractor drawings read together with the contract specifications are intended to show and explain the manner of executing the work and to indicate the type and class of materials to be used.

The works shall be carried out in accordance with the directions of Engineer-in-Charge, in accordance with the drawings and specifications which form part of the contract and in accordance with such further drawings, details and instructions as may, from time to time, be given by the Engineer-in-Charge.

Only stated dimensions are to be taken and not those obtained from scaling off the drawings. In case of any discrepancy between the description of items in the schedule of quantities and the specifications, the latter shall prevail. In case any feature of the work is not fully described and set forth in the drawings and specification, the contractor shall forthwith apply to the Engineer-in-Charge for further instructions, drawings or specifications.

**11.10 SIGNED DRAWINGS—NO AUTHORITY TO THE CONTRACTOR**

Signed drawing alone shall not be deemed to be an order for work unless it is entered the agreement or schedule of drawings under proper attestation of the contractor and the Engineer-in-Charge or unless it has been sent to the contractor by the Engineer-in-Charge with a covering letter confirming that the drawing is an authority for work in the contract.

**12.0 COPIES OF DRAWINGS AND SPECIFICATIONS**

Three sets of the drawings, any modified or supplementary drawings, and the specifications shall be furnished free of cost to the contractor.

**13.0 PLANS AND DRAWINGS**

The contractor shall submit the following information, in triplicate, to the Engineer-in-Charge for approval within the time stipulated against each item below:

- (i) A general layout plan of construction plant and equipment for the execution of work within fourteen days from the date of notice to proceed with the work, and
- (ii) Drawings of prints showing the location of major plants and other facilities which he proposed to put up at the site, including any changes in the general layout, at least fourteen days prior to the commencement of the respective work.

#### **14.0 REFERENCE MARKS AND BENCH MARKS**

The basic center lines, reference points and bench marks will be fixed by the department.

The contractor shall establish at his cost, at suitable points additional reference line and bench marks as may be necessary. The contractor shall remain responsible for the efficiency and accuracy of all his bench marks and reference lines. He shall take precautions to see that the lines, points and bench marks fixed by the department are not disturbed by his work and shall make good any such damage.

#### **15.00 Period of Maintenance and Defects Liability:**

The Contractor shall be responsible to make good within such period as may be stipulated by the Engineer-in-Charge any defect which may develop or may be noticed during period of maintenance of 180 days from the certified date of completion and which is attributable to the contractor. All notice of such defect shall be given to the contractor promptly. In case the contractor fails to make good the defects, the Engineer-in-Charge may employ other persons to make good such defects, and all expenses consequent there-of and incidental there-to shall be borne by the contractor.

In the event the Employer takes over portions of work as they are completed, the liability of the contractor under clause for those portions shall extend to a period of 180 days from the actual dates on which portions of the works are taken over.

#### **15.01 Contractor's Superintendence and Supervision:**

- a) The contractor shall provide all necessary superintendence during the execution of the works and as long thereafter as may be necessary for the proper fulfilling of the contractor's obligations under the contract. The contractor or a competent and authorized agent or representative approved of in writing by the Engineer-in-Charge is to be constantly on the works and shall give his whole time to the superintendence of the same.
- b) The contractor shall provide and employ on the site in connection with the execution and maintenance of the works.
  - (i) Only such technical assistants as are skilled and experienced in their respective callings and such sub-agents, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise, and
  - (ii) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the works.

#### **16.00 Construction Plant:**

The Contractor shall provide and install all necessary construction plant and shall use such methods and appliances for the performance of the operations connected with the work awarded under the contract as will secure a satisfactory quality of work and rate of progress which ensure the completion of the work within the time specified.

#### **17.00 Setting out Works:**

The Contractor shall be responsible for the correct setting out of all works at his cost. The contractor shall execute the work true to alignment, grade and levels as shown in the drawings and as directed by the Engineer-in-Charge and shall check these at frequent intervals. The contractor shall provide, all facilities like labour and instruments, and shall cooperate with the Engineer-in-Charge to check all alignments, grades, levels, and dimensions. Such checking shall not absolve the contractor of his own responsibility of maintaining the accuracy of the work.

## **18.0 INFORMATION AND DATA**

The information and data furnished herein relative to the works and site conditions are general. It shall be the responsibility of the contractor to fully acquaint himself with the nature and the location of works, quarries, local conditions and other aspects which are relevant to the work.

## **19.0 USE AND CARE OF SITE**

The contractor will be permitted to use without charge, the site and the lands for execution of work, labour, staff colonies, site officers, workshops or stores and for related activities. The contractor shall not commence any operation on such lands except with the approval of the Engineer-in-Charge. If these lands are not adequate, the contractor may have to make his own arrangements for additional lands.

The contractor shall not demolish, remove or alter the structures, trees or other facilities on the site without prior approval of the Engineer-in-Charge. All rubbish shall be burnt or removed from the site as it accumulates.

All surface and soil drains shall be kept in a clean, sound and workman like state. All the areas of the contractor's operations shall be cleared before returning them to the Employer. The contractor shall make good any damage or alternations made to areas, property or land handed over to him before these are returned.

## **20.0 PROTECTION OF ADJOINING PREMISES**

The contractor shall protect adjoining sites against structural, decorative and other damages that could be caused by the execution of these works and make good at his cost, any such damages.

## **21.0 ACCIDENTS AND INSURANCE AGAINST ACCIDENTS ETC. TO WORKMEN**

- a) The department shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other person in the employment of the contractor or any sub-contractor. The contractor shall indemnify and keep indemnified the employer against all such damages compensation, and against all claims, proceedings, costs, charges and expense whatsoever in respect thereof or in relation thereto.
- b) On the occurrence of an accident arising out of the works which results in death or which is so serious as to be likely to result in death, the contractor shall within twenty four hours of such accident, report in writing, to the Engineer-in-Charge, the facts stating clearly and in sufficient details the circumstances of such accident and the subsequent action. All other accident on the works involving injuries to persons, damage to property other than that of the contractor shall be promptly reported to the Engineer-in-Charge stating clearly and in sufficient details the facts and circumstances of the accidents and the action taken. In all cases the contractor shall indemnify the Employer against all loss or damage resulting directly or indirectly from the contractor's failure to report in the manner aforesaid. This includes penalties or fines if any, payable by the employer as a consequence of failure to give notice under the workmen's compensation act or failure to conform to the provisions of the said act in regard to such accidents.
- c) In the event of an accident in respect of which compensation may become payable under the Workmen's Compensation Act including all modifications thereof, whether such compensation may become payable by the contractor or by the Government as principal employer, the Engineer-in-Charge may retain out of money due and payable to the contractor such sum or sum of money as may, in the opinion of the Engineer-in-Charge, be sufficient to meet such liability. On receipt of award from the

labour commissioner in regard to quantum of compensation, the difference in amount will be reimbursed to or recovered from the contractor.

- d) The contractor shall insure against such liability with an insurer approved by the Government, which approval shall not be unreasonably withheld, and shall continue such insurance during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the engineer or the engineer's representative such policy of insurance and the receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor, the contractor's obligation to insure as aforesaid under this sub-clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that the employer is indemnified under the policy, but the contractor shall require such sub-contractor to produce to the Engineer or the Engineer's representative, when required, such policy of insurance and the receipt for the payment of the current premium.

## **22.0 CERTIFICATE OF COMPLETION OF WORKS**

- a) When the whole of the works have been substantially completed and have satisfactorily passed any final test that may be prescribed by the contract, the contractor may give a notice to that effect to the engineer or to the engineer's representative accompanied by an undertaking to finish any outstanding work during the period of maintenance. Such notice and undertaking shall be in writing and shall be deemed to be a request by the contractor for the engineer to issue a certificate of completion in respect of the works. The Engineer-in-Charge shall, within twenty-one days of the date of delivery of such notice, issue a certificate of completion stating the date on which, in his opinion, the works were substantially completed in accordance with the contract or give instructions in writing to the contractor specifying all the work which, in the Engineer's opinion, requires to be done by the contractor before the issue of such certificate. The engineer shall also notify the contractor of any defects in the works affecting substantial completion that may appear after such instructions and before completion of the works specified therein. The contractor shall be entitled to receive such certificate of completion within twenty-one days of completion to the satisfaction of the engineer of the works so specified and making good any defects so notified.
- b) If any part of the permanent works shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed by the contract, the engineer may issue a certificate of completion in respect of that part of the permanent works before completion of the whole of the works and upon the issue of such certificate, the contractor shall be deemed to have undertaken to complete any outstanding work in that part of work during the period of maintenance.
- c) Provided always that a certificate of completion given in respect of any section or part of the permanent works before completion of the whole shall not be deemed to certify completion of any ground or surfaces requiring reinstatement, unless such certificate shall expressly so state.

## **23.0 TOLLS AND DUTIES**

The contractor shall, unless otherwise specifically provided in the contract, pay all duties, tolls, quarry fees, royalties and other taxes on all materials and articles that he may use.

## **24.0 OLD CURIOSITIES**

All old curiosities, relics, coins, minerals and any other item of archeological importance found in excavation or pulling down shall be the property of the Government and shall be handed over to the Engineer-in-Charge. Should any structure be uncovered, the Engineer-in-Charge's instruction shall be obtained before its demolition or removal.

## **25.0 ENGINEER-IN-CHARGE'S DECISION**

It shall be accepted as an inseparable part of the contract that in matters regarding materials, workmanship, removal of improper work, interpretation of the contract drawings and contract specifications, mode of procedure and the carrying out of the work, the decision of the Engineer-in-Charge, which shall be given in writing, shall be final and binding on the contractor.

## **26.0 OTHER CONTRACTORS**

When two or more contractors are engaged on work in the same vicinity, they shall work together in a spirit of co-operation and accommodation. The contractor shall not take any steps or actions that may cause disruptions, discontent or disturbance in the neighbouring and project localities. In case of any difficulties amongst the contractors, the Engineer-in-Charge shall direct the manner in which each contractor shall conduct his work so far as it affects the others.

## **27.0 OTHER WORKMEN**

The Engineer-in-Charge shall have full authority to depute workmen on the work site to execute other works not included in the contract. The contractor shall afford every reasonable facility during working hours, to enable such workmen to carry out the other works provided that such works shall be carried out in such a manner as not to impede the progress of the work included in the contract. The contractor, however, shall not be liable for any damage which may happen to or be occasioned by such other works, provided he complies with the instructions in connection therewith and provided that the damage is not caused by the contractor or his workmen.

## **28.0 VARIATIONS AND EXTRA ITEMS**

### **(A) Variations:**

- a) All quantities set out in the bill of quantities are the estimated quantities of the work based on preliminary drawings and they are not to be taken as the actual and correct quantities of the works to be executed by the contractor in fulfillment of his obligations under the contract.
- b) The Engineer-in-Charge shall make any variation of the form, quality or quantity of the works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason is shall, in his opinion be desirable, he shall have power to order the contractor to do so and the contractor shall do any of the following:
  - (i) increase or decrease the quantity of any work included in the contract,
  - (ii) omit any such work,
  - (iii) change the character or quality or kind of any such work,
  - (iv) change the levels, lines, position and dimensions of any part of the works, and execute additional work of any kind necessary for the completion of the works, change any specified sequences, method or timing of construction of any part of the works and no such variation shall in any way vitiate or invalidate the contract.

The quantities given in the tender may vary upto any amount on either side. The contractor shall not claim any thing on this account and will carry out the work at his tendered rates.

**(B) Extra items:**

The extra or additional work done or work omitted by order of the Engineer-in-Charge shall be valued at the rates and prices set out in the contract if, in the opinion of the Engineer-in-Charge, the same shall be applicable. If the contract does not contain any rates or prices applicable to the extra or additional work, then rates will be fixed as per clause-16 of I.D. Form No.-111 annexed with the tender.

**29.0 CLAIMS**

The contractor shall send to the engineer-in-charge all claims for any additional payment to which the contractor may consider him self entitled within a fortnight of the claim as enumerated in Form-111 (Conditions of the contract). He shall also give details of all extra or additional work ordered by the engineer-in-charge which he has executed during the preceding month.

No final or interim claim for payment for any such work or expense will be considered which has not been included in such particulars. Provided always that the engineer shall be entitled to authorize payment to be made to any such work or expense, notwithstanding the contractor's failure to comply with this condition, if the contractor has, at the earliest practicable opportunity, notified the engineer-in-charge in writing that he intends to make a claim for such work.

**30.0 MEASUREMENT AND PAYMENT**

- a) The engineer-in-charge shall, except as otherwise stated, ascertain and determine by measurement the value in terms of the contracts of work done in accordance with the contract. He shall, when he requires any part or parts of the works to be measured, give notice to the contractor's authorized agent or representative, who shall forthwith attend or send a qualified agent to assist the engineer-in-charge or the engineer's-in-charge representative in making such measurement, and shall furnish all particulars required by either of them. Should the contractor not attend, or neglect or omit to send such agent, then the measurement made by the engineer-in-charge or approved by him shall be taken to be correct measurement of the work. For the purpose of measuring such permanent work as is to be measured by records and drawings, the engineer's-in-charge representative shall prepare records and drawings month by month of such work and the contractor, as and when called upon to do so in writing, shall, within fourteen days, attend to examine and agree such records and drawings with the Engineer's-in-Charge Representative and shall sign the same when so agreed. If the contractor does not so attend to examine and agree such records and drawings, they shall be taken to be correct. If, after examination of such records and drawings, the contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the contractor shall, within fourteen days of such examination, lodge with the engineer's-in-charge representative, for decision by the engineer-in-charge, notice in writing of the respects in which such records and drawings are claimed by him to be incorrect.
- b) The works shall be measured net, notwithstanding any general or local custom, except where otherwise specifically described or prescribed in the contract.
- c) Payments will be made to the contractor according to availability of funds.
- d) On completion of the entire work, the contractor will submit his final bill. Payment of this bill shall not be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which it relates, nor shall it relieve the contractor from his liabilities arising from any defects.
- e) All interim payments shall be treated as advance payments. All payments will be made by cheque.

### **31.0 RECOVERIES**

Any debts due from Indian contractors, advised by the Government, shall be recovered from any bill or money retained from this contract.

### **32.0 JURISDICTIONS**

The contract shall be governed by the laws of India and of Uttar Pradesh for the time being in force and be subject to the jurisdiction of the High Court of judicature at Allahabad.

### **33.0 PATENTS AND COPY RIGHTS**

The contractor shall save harmless and indemnify the employer from and against all claims and proceedings for or on account of infringement of any patent rights, design, trademark or name or other protected rights, design, trademark or name or other protected rights in respect of any constructional plant, machine, work or material used for or in connection with the works or any of them and from and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the works or any of them.

### **34.0 RULES REGARDING LABOUR LAWS IN UTTAR PRADESH**

The contractor shall be bound and shall be responsible to comply with the provisions of the labour laws in force in the state of Uttar Pradesh including the Minimum Wages Act to any enactment in suppression, extension or modification there of which may be passed at any time or from time to time by a competent legislative body and may have effect in the State of Uttar Pradesh and Rules and Regulations made there under or any amendment of modifications thereof for the time being in force; All expenses in connection with the compliance of such laws and rules shall be borne by the contractor, and the contractor shall neither demand nor claim nor shall be entitled to any additional payment for the reason that he failed to take into account any such expenses in his tender of that any subsequent amendments in such laws or rules have changed the basis on which he worked out such expenses shall submitting his tender.

In every case in which by virtue of the provisions of the labour laws in force in the State of Uttar Pradesh and the rules and regulations made there-under, the employer is obliged to pay any sum in the execution of the work. Employer will recover from the contractor the amount so paid, and without prejudice to the other rights of the Department, the Department shall be at liberty to recover such amount or any part thereof by deducting it either from the security money deposited by the contractor or to his credit under clause-1 of I.D. Form No.-111 or from any other sum due by employer to the contractor whether under this contract or otherwise.

### **35.0 SAFETY PROVISIONS**

The contract shall arrange for the safety in his operation as required including the provisions in the safety manual published by the Central Water Commission New Delhi. In case the contractor fails to make such arrangements the engineer-in-charge shall be entitled to cause them to be provided and to recover the cost thereof from the contractor.

For failure to comply with provisions of the safety manual the contractor shall without prejudice to any other liability pay to employer a sum not exceeding Rupees one hundred per day for each day of default.

### **36.0 TAXATION**

#### **(i) Local Taxation:**

The prices bid by the contractor shall include all customs, duties, import duties, business taxes, income and other taxes that may be levied according to the laws and regulations in being as of the date 30 days prior to the closing date for submission of bids on the constructional plant, materials and supplies (both permanent, temporary and consumable) acquired for the purpose of the contract and on the service performed under the contract. Nothing in the contract shall relieve the contractor from his responsibility to pay any tax that may be levied on profits made by him in respect of the contract.

#### **(ii) Income Tax:**

- a) Deduction will be made towards income tax at source by the Employer as directed by Income Tax Department from contractors.
- b) The contractor's staff, personnel and labour will be liable to pay personal income taxes in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

### **37.0 TRADE TAX DEDUCTION**

- (1) Nothing in the contract shall relieve the contractor from the responsibility to pay any trade tax that may be levied under the U.P. Sales Tax Act, 1948 as amended from time to time in performance of this contract. Deduction of an amount equal to that specified in section of the aforesaid act as in force of or as the case may be, shall be made from the payments to be made to the contractor. The amount presently specified in the said section is 4 (four) percent of the amount payable to the contractor and a surcharge of 25 (twenty five) percent on Tax amount. No trade tax shall be deducted on the cost or are subject to any amendment to the contractor. Above deductions are subject to any amendments made in future. The trade tax or any other tax as applicable from time to time shall be recovered from the contractor's bill.
- (2) Any tax imposed by U.P. Govt. shall be recovered from contractor's bill.

### **38.0 SALES CLEARANCE CERTIFICATE**

If the contractor is a sales tax assessee, he should produce a valid sales tax clearance certificate before payment of the final bill otherwise the final payment to the contractor will be withheld.

If the contractor is not liable to sales tax assessment, a certificate to this effect from the competent sales tax authorities shall be produced before payment of the final bill otherwise the final payment to the contractor will be withheld.

### **39.0 CONTRACTOR DYING, BECOMING INSOLVENT, INSANE OR IMPRISONED**

In the event of the death or insanity of the contractor, the contract may be terminated by notice in writing, pasted at the site and advertised in the issue of the local newspaper. All acceptable works shall thereafter, be paid at appropriate rates after recovering all the contractor's dues to Government, to the persons entitled to receive and give a discharge for such payments.

If the contractor is imprisoned, becomes insolvent, compounds with his creditors, has a receiving order made against him or carries on business under a receiver for the benefit of the creditors or any them, or being a partnership firm becomes dissolved, or being a corporation goes into liquidation or commences to be wound up not being a voluntary winding up for the purpose only of amalgamation or reconstruction, the Employer shall be at liberty:

- a) To give such liquidator, receiver, or other person in whom the contract may become vested the option of carrying out the contract, or a portion thereof to be determined by the employer, subjects to his providing an appropriate guarantee for the performance of such contract, or
- b) To terminate the contract forthwith by notice in writing to the contractor, the liquidator, the receiver or person in whom the contract may become vested and take further action as provided in the clause 'Default by Contractor' treating as if this termination is ordered under that clause.

### **40.0 COMPENSATION FOR DELAY**

The compensation for delay shall be as per clause-2 of I.D. form No.-111.

### **41.0 CARE OF WORKS AND EXPECTED RISKS**

- (1) From the commencement of the works until the date stated in the certificate of completion for the whole of the works pursuant to relevant clause here of the contractor shall take full responsibility for the care thereof. Provided that if the Engineer-in-Charge shall issue a certificate of completion in respect of any part of the permanent works the contractor shall cease to be liable for the care of that part of the permanent works from the date stated in the certificate of completion in respect of that part and the responsibility for the care of that part shall pass to the employer. Provided further that the contractor take full responsibility for the care of any outstanding work which he shall have undertaken to finish during the Period of maintenance until such outstanding work is completed. In case any damage, loss or injury shall happen to the work, or to any part thereof, from any cause whatsoever, save and except the excepted risks as defined in sub-clause (2) of this clause, while the contractor shall be responsible for the care thereof the contractor shall, at his own cost, repair and make good the same, so that at completion the permanent works shall be in good order and condition and in conformity in every respect with the requirements of the contract and Engineer's instructions. In the event of any such damage, loss or injury happening from any of the excepted risks, the contractor shall, if and to the extent required by the Engineer-in-Charge and subject always to the provisions of relevant clause here of repair and make good the same as aforesaid at the cost of the Employer. The contractor shall be liable for any damage to the works occasioned by him in the course of any operations carried out by him for the purpose of completing any outstanding work.
- (2) The 'excepted risks' are war, hostilities (whether war be declared or not), invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, or unless solely restricted to employees of the contractor or of his sub-contractors and arising from the conduct of the works, riot, commotion or disorder or use or occupation by the employer of any part of the permanent works, or a cause solely due to the engineer's design of the works, or ionizing radiations or contamination by radio-activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of explosive, nuclear assembly or nuclear component thereof, pressure waves caused by aircraft or other aerial devices

traveling at sonic or supersonic speeds, or any such operation of the forces of nature as an experienced contractor could not foresee, or reasonably make provision for or insure against all of which are herein collectively referred to as the excepted risks.

#### **42.0 EXTENSION OF TIME FOR COMPLETION**

Time shall be considered as the essence of the contract. Should the amount of extra or additional work of any kind or any cause of delay referred to in these conditions or any cause of delay referred in earlier clauses here of, or exceptional adverse climatic conditions, or other special circumstances of any kind whatsoever which may occur, other than through a default of the contractor, be such as fairly to entitle the contractor to an extension of time for the completion of works, the Employer shall determine the amount of such extension and shall notify the contractor accordingly. Provided that the Employer is not bound to take into account any extra of additional work or other special circumstances unless the contractor has within twenty-eight days after such work has been commenced, or such circumstances have arisen, or as soon thereafter as is practicable, submitted to the engineer's-in-charge representative full and detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

#### **43.0 SETTLEMENT OF DISPUTES**

If the contractor considers any work demanded of him to be outside the requirements of the contract or considers any drawings, record or ruling of the Engineer-in-Charge on any matter in connection with or arising out of the contract or the carrying out of work to be unacceptable, he shall promptly ask the Engineer-in-Charge in writing, for written instructions or decision. Thereupon the Engineer-in-Charge shall give his written instruction or decision within a period of thirty days of such request.

Upon receipt of the written instruction or decision the contractor shall promptly proceed without delay to comply with such instructions or decision.

If the Engineer-in-Charge fails to give his instructions or decision in writing within a period of thirty days after being requested, or if the contractor is dissatisfied with the instructions or decision of the Engineer-in-Charge, the contractor may within thirty days after receiving the instructions or decision appeal to the Executive Engineer, who shall afford an opportunity to the contractor to be heard and to offer evidence in support of his appeal. The Executive Engineer shall give a decision within a period of thirty days after the contractor has given the said evidence in support of his appeal.

If the contractor is dissatisfied with this decision, the contractor within a period of thirty days from receipt of the decision shall indicate his intention to refer the dispute to Arbitration failing which, the said decision shall be final and conclusive.

#### **44.0 ARBITRATION**

All disputes or differences in respect of which the decision has not been final and conclusive shall be referred to Superintending Engineer for arbitration whose decision shall be final and binding on both the parties.

#### **45.0 CONTRACT DOCUMENTS AND MATTERS TO BE TREATED AS CONFIDENTIAL**

All documents, correspondence, decisions and orders concerning to the Contract shall be considered as confidential and / or restricted in nature by the contractor and he shall not divulge or allow access to them by any unauthorised person.

**46.0 JOINT VENTURES**

If the contractor is a joint venture, all partners of the joint venture shall be jointly and severally liable to the employer for the execution of the entire contract in accordance with its terms.

**47.0 SECURITY DEPOSIT FOR PERFORMANCES & SECURITY DEPOSIT**

The contractor will deposit for performance full security as per clause No.-1 of I.D. form No.-111 and its amendment or as per latest orders of U.P. Irrigation department at the time of entering into the agreement. The E.M.D. already deposited will be adjusted towards the security amount. The security deposit may be in the form of the F.D.R. or in the shape of Bank Guarantee from the Nationalised Bank. The Bank Guarantee performa is enclosed with the tender.

**48.0 SPECIAL CLAUSE**

If there is any discrepancy between the condition of contract and I.D. form No.-111 attached with the tender, the conditions given in I.D. form No.-111 will prevail and will be binding on the contractor.

**49.0 INSPECTION OF WORK BY TECHNICAL EXAMINER**

The work may be examined by the Technical Examiner or his representatives. If in the opinion of the said examiner or his representatives, the work executed by the contractor is found defective and consequently the penalties are imposed, the penalties so imposed shall be recovered from the contractor. The decision of the Engineer-in-Charge or his representatives shall be final and binding on the contractor in this respect.

**50.0** If any person whatsoever is found actively associated with Mafia and unsocial elements or engaged in organized crime or is a Mafia or mafiso is disqualified from bidding.

**51.0** Even if it comes to knowledge after award of a contract that the contractor is associated with Mafia and unsocial elements or engaged in organized crime or is a Mafia or mafiso, the contract will be cancelled after serving a showcase notice and if the contractor is found repeating the same, then the proceeding of black listing him shall also be initiated.

**52.0** If it is found that the contractor or the bidder has threatened the other bidders or prevented them from bidding, the tender / contract will be cancelled.

**53.0** Any advocate registered in state bar council will not be authorised for bidding. If it comes in knowledge that contractor is a state bar council registered advocate, the contract will be cancelled after having been satisfied of this fact.

**AFFIDAVIT- '1'**

**CERTIFICATE TO BE FURNISHED ON AFFIDAVIT**

(By the person/persons signing the bidding document)  
**(ON NON-JUDICIAL STAMP PAPER OF RS. 100.00)**

**To,**

**Executive Engineer  
Rampur Canal Division,  
Rampur (U.P.).**

**NAME OF WORK:-**

**Tender Notice No.: 01/EE/2026-27**

**Lot No.:**

Under penalty of perjury, I/We (Complete name and address)

.....  
.....certify under oath as such:

1. I/We understand that the tender opening/evaluation committee will decide the eligibility for the contract of this work on the strength of the information/documents scanned and submitted on e-portal by me/us.
2. I/We understand that the tender opening/evaluation committee is relying on the information/documents scanned and submitted on e-portal for the purpose of determining my eligibility for the contract of this work.
3. That all the information/documents furnished with the bid documents on e-portal by me/us are true in all respects.
4. That I/We have and will retain all the originals(as per clause 1.11 of the Pre Qualification of Technical And Financial Bid document) with me/us till the bidding process is finally over, and will produce them when-ever demanded by the Tender Inviting Authority during the bidding process for verification/use.

Date.....  
signing)

(Name & Designation and Title of person

**AFFIDAVIT- '2'**

**AUTHORITY TO SEEK REFERENCE FROM BANK/BID VALIDITY/MINIMUM  
INVESTMENT IN CASH**

(By the person/persons signing the bidding document)  
**(ON NON-JUDICIAL STAMP PAPER OF RS. 100.00)**

To,

**Executive Engineer  
Rampur Canal Division,  
Rampur (U.P.).**

**NAME OF WORK:-**

**Tender Notice No.: 01/EE/2026-27**

**Lot No.:**

1. I/We undersigned do hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation .
2. I/We undersigned do hereby agree that my/our firm will abide by this bid for a period 90(ninety) days for the date fixed for receiving the same and it shall be binding on me/us and my/our firm and may be accepted at any time before the expiration of that period.
3. As per requirement of the tender, I/we hereby confirm/declare that I/we, am/are not black listed/debarred by any Department/ Organization of any State or Central Government at the time of this tendering.
4. I/We undersigned do hereby undertake that my/our firm would invest a minimum cash up to 10% of the tendered value of the work during implementation of the contract.

.....  
(Signed by an Authorized Signatory/'s of the Firm)

.....  
(Name of Firm)

**FORM - 'H**

**(ON NON-JUDICIAL STAMP PAPER OF RS. 100.00)**

**LITIGATION HISTORY (Of Last five years)**

a.....Information on current litigation in which the Bidder is involved.

Name of other party(s)	Cause of dispute	Litigation where (Court/arbitration)	Amount involved

Signature of the Contractor/Bidder.....

**Note:** Self Attested copies of supporting documents should be enclosed as proof of information entered as an annexure to this form.

**AFFIDAVIT- '3'**

**BID DOCUMENT UNDERTAKING**  
**(ON NON-JUDICIAL STAMP PAPER OF RS. 100.00)**

**To,**  
**Executive Engineer**  
**Rampur Canal Division,**  
**Rampur (U.P.).**

**Name of Work:**

**Tender Notice No.: 01/EE/2026-27**

**Lot No.:**

I/We (Complete name and address)

.....

....

undertake that the decision of the tender opening committee/Tender inviting authority shall be final & acceptable to me. I/We shall ask no claim in this regard against the department.

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

.....  
(Title of Officer)

.....  
(Name of Firm)

## Enclosure-II

निम्न प्रारूप रू0 100.00 (रू0 एक सौ मात्र) मूल्य के नान जूडिशियल स्टाम्प पर छपवाकर हस्ताक्षरित रू0 1.00 का रसीदी टिकट लगाकर टेण्डरदाता द्वारा हस्ताक्षरित स्टैम्प निविदा के साथ प्रेषित करना अनिवार्य है।

### अनुबन्ध

किसके द्वारा टेण्डर आमंत्रित किया गया .....

किस कार्य के लिए .....

टेण्डर नोटिस संख्या एवं दिनांक .....

टेण्डरदाता का नाम .....

उत्तर प्रदेश के राज्यपाल महोदय द्वारा टेण्डरदाता को उसके टेण्डर पर विचार करने के सम्बन्ध में पात्र व्यक्ति मान लिए जाने के फलस्वरूप टेण्डरदाता एतद् द्वारा इन शर्तों पर अपनी सहमति देता है कि वह उपरोक्त टेण्डर आमंत्रित किये जाने के प्रत्युत्तर में भेजा गया अपना प्रस्ताव टेण्डर खोले जाने के दिनांक से 3 माह के भीतर वापस नहीं लेगा।

साथ ही इस शर्त पर भी अपनी सहमति देता है कि यदि टेण्डर प्रस्तुत करने के बाद टेण्डरदाता उक्त अवधि के भीतर अपना प्रस्ताव वापस ले लेता है तो उसके द्वारा जमा की गई बयाने की धनराशि उत्तर प्रदेश शासन द्वारा विवेकानुसार जब्त की जा सकती है।

टेण्डरदाता एतद् द्वारा इस बात के लिए सहमत है कि यदि अपना टेण्डर प्रस्तुत करने के बाद वह टेण्डर में कोई संशोधन, परिवर्तन अथवा अंक शोधन करें, जो विभाग को स्वीकार न हो, पूर्वान्छित शर्तों के प्रयोजनार्थ यह समझा जायेगा कि टेण्डरदाता ने अपना प्रस्ताव वापस ले लिया है।

आज दिनांक ..... को हस्ताक्षर किया गया।

हस्ताक्षर साक्षी – पूर्ण पता

हस्ताक्षर टेण्डरदाता

1.

## TECHNICAL PROVISIONS

### 1.0 GENERAL

- 1.01 The work is situated at Rampur Canal Division, Rampur (Dist Rampur, U.P.).
- 1.02 The nearest Railway Station Rampur.
- 1.03 The site is connected by Kachcha / Brick on edge / metalled road to the state highway road from Rampur.
- 1.04 It is understood and agreed that the contractors, have inspected and examined the site and its surroundings and satisfied themselves in respect of the scope of work, the site conditions including, but not restricted to the following which may influence or effect the work or cost thereof under the contract.
- a) Site conditions including access to the site, existing and required roads and other means of transport / communications for use by him in connection with the work.
  - b) Requirement and availability of land and enabling works, colonies, stores and workshops etc.
  - c) Ground conditions, including those bearing upon transportation, disposal, handing and storage of materials required for the work or obtained there from.
  - d) Source and extent of availability of suitable materials including required sections of steel, welding materials, equipments etc. and labour (skilled and unskilled) required for work and laws and regulation governing their use and employment.
  - e) The type of equipment and facilities needed preliminary to, for and in the performance of the work and,
  - f) All other information's pertaining to needs for the work, information as to the risks, contingencies and other circumstances which may influence or effect the work or the cost thereof under the contract.
- 1.05 All works shall be carried out in accordance with the detailed specifications hereinafter described. In case specification of any work are not given, the work shall be carried out in accordance with the latest I.D. specifications and provisions of relevant I.S./I.R.C. specifications, as amended to date or as per instructions of the Engineer-in-charge The order to commence the work shall be given in writing by the Engineer-in-charge Without the written order, the contractor shall not enter upon or commence any portion of the work. If he does so, the contractor shall have no claim to ask for measurement or payment for the work and shall be responsible for any claim damages that may arise due to such unauthorized commencement of work.
- 1.06 The contractor shall start the work under this contract within 30 calendar days after the date of receipt of proceed with the work. Any delay by the Contractor in commencement of the work will render him liable to action.
- 1.07 The Contractor shall at all times maintain the speed of work to conform to the latest operative progress schedule but the Engineer-in-charge may at any time with one month's notice in writing direct the contractor to slow any part or whole of the work for any reason whatsoever (which shall not be questioned) and the Contractor shall comply with such orders of the Engineer-in-charge The compliance of such orders shall not entitle the contractor to any claim or compensation except that reasonable extension of time to be determined by the Engineer-in-charge, will be granted in case slowing down results in delay in final completion of work.
- 1.08 The Engineer-in-charge may order the contractor to suspend any work that may be subject to damage by climatic or weather conditions.

- 1.09 The contractor shall not do any work other than provided in the agreement without the written orders of the Engineer-in-charge No Claim, whatsoever, shall be entertained for any unauthorized work.
- 1.10 No claim shall be entertained for idle labour for any reason except as otherwise provided for in the contract documents.
- 1.11 If the contractor keeps his labour and employees at site, he shall provide, at his own cost, proper arrangements for accommodations, sanitations and water supply etc. and the site shall be kept clean and tidy by the contractor to the satisfaction of the Engineer-in-charge and as per prevalent labour laws. Jungle and jhund clearance, filling of pits, levelling, dressing and cleaning etc. of the land provided to the contractor for his camp, labour and staff colonies, site offices, work-shops or store etc. and for relative activities shall be done by the Contractor himself for which no extra payment shall be made.
- 1.12 Proper discipline shall be maintained at the work site and in labour camp. If in the opinion of the Engineer-in-charge any employee or agent of the contractor misbehaves or causes hindrance in the execution of work or indulges in undesirable activities in the camp or otherwise makes himself undesirable, the Engineer-in-charge may direct the contractor to remove such person from site or him camp and the contractor shall be liable to carry out such orders. No claims on this account shall be entertained.
- 1.13 All materials arranged by the contractor shall be subject to approval of the Engineer-in-charge.
- 1.14 No claim shall be entertained by the Government in respect of any theft, loss or damage due to accident occurring for any reason whatsoever. The contractor shall be responsible for the safety of the materials issued to him for the work.
- 1.15 The contractor is to include the whole of the works whether permanent or temporary which are described in or implied by the efficiency, stability and completion of the permanent works, also the performance of all other operations including clearance of site and supplying all materials and things described in or implied by the contractor documents, which may be deemed desirable or required for the completion in all respect of the above works to the entire satisfaction of the Engineer-in-charge and all such matters shall be deemed as included in the contract.
- 1.16 The contractor shall maintain O.K. cards of the works in the performa approved by the engineer-in-charge It shall be the duty of the contractor to get the O.K. card signed by the engineer or his representative before starting any work. No work shall be started without O.K. unless otherwise permitted by the Engineer-in-charge.
- 1.17 The contract shall be construed according to an subject to the laws of India and within jurisdiction of Courts of India.
- 1.18 The Engineer-in-charge shall have the right to take possession of or use any completed part of work or any part thereof under construction either temporarily or permanently. Such possession or use shall not be deemed as an acceptance of any work either completed or not completed in accordance with the contract, except where expressly otherwise specified by the Engineer-in-charge
- 1.19 All the works during the progress and after the completion may be subject to technical audit. Any defects of materials or workmanship discovered during such audit and established as such shall be rectified by the contractor at his own cost. Any recoveries or reduction in rates, considered necessary, shall be made from the contractor from the subsequent bills or securities of the contractor, even if the work been accepted by the Engineer-in-charge.

- 1.20 No Claim for interest or damage will be entertained by the Government with respect to any balance money which may be lying with the Government or may become due owing to any dispute, difference or misunderstanding between the Engineer-in-charge on the one hand and the contractor on other hand or with respect to any delay on the party of the Engineer-in-charge in making periodical or final payment or in any other respect whatsoever.
- 1.21 The rates and prices tendered in the bill of quantities shall, except in so far as it is otherwise provided under the contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the contract.
- 1.22 Running or intermediate payments to the contractor shall be done at reduced rate as decided by the Engineer-in-charge

### **3.0 CONTRACTOR'S GODOWNS**

- 3.01 The materials will be issued to the contractor only according to the requirement of the work .Contractor shall made arrangements for the safe storage and custody of materials for which nothing extra will be paid to him.
- 3.02 The contractor shall maintain suitable godowns at site of works at his own cost which should be sufficient for storing his requirements for cement, steel and other materials, Cement shall be stored in separate damp proof godowns.
- 3.03 At every godown of the contractor a bound register shall be maintained in which daily receipt and consumption of materials should be maintained. The register should be made available for checking on demand by the Engineer-in-charge The contractor shall maintain proper watch and ward of godowns at his own expenses.

### **4.0 POWER FOR CONSTRUCTION ACTIVITIES.**

The contractor will make his own arrangement for power required for construction activities either from U.P. Power Corporation or by his own diesel generating sets. The employer will issue necessary recommendations if required by the contractor to the U.P. Power Corporation for releasing the electric connection.

### **5.0 SITE CLEARANCE**

The work to be done under this section consists of furnishing all plants, labour and materials and executing all works necessary to perform all cleaning operations as hereinafter specified and as directed by the Engineer-in-charge The area to be occupied by the structure shall be cleared of all specified trees, bushes, roots etc., and other objectionable materials, before starting any work. The land shall be maintained free from any growth and vegetation during the progress of construction by the contractor at his own expenses.

All roots, bushes etc. and other objectionable materials within the areas required to be cleared shall be burnt or otherwise completely removed from its site to the satisfaction of Engineer-in-charge. No payment shall be made for all these operations involved and shall be deemed to be covered in rate of excavation item. However, trees shall be property of the Government.

### **6.0 EARTH WORK IN EXCAVATION**

#### **6.01 General:**

The work to be done under this section is surface excavation and consists of furnishing all tools, plant, labour and material and performing all works required to do all excavation and maintain the excavation slopes and prepare the foundations as specified in these specification and as may be directed in the field by the engineer-in-charge. The work to be done under this

section includes excavation in all type of soil weathered or loose; dry or wet etc.; including all overburden, silt, earth, clay, sand, gravel, soft moorum etc.

7.00 **Excavation of Foundation:**

7.01.01 Before starting excavation or placing earth for embankment or spoil banks, land shall be cleared off all trees, bushes, vegetation, rubbish roots etc. The material thus recovered shall be the property of Government and shall not be disposed off except as approved by the Engineer-in-charge. The land shall be maintained free from any growth and vegetation during progress of construction works.

Excavation for foundation of the structure shall be done upto the levels showing in the drawings or as directed by engineer-in-charge and shall be so shaped, cleaned and roughly stepped, as to produce the desired surface of contact between the concrete and earth as shown on the drawings or as directed by the Engineer-in-charge. The bottom and side slopes of common excavation upon or against which concrete is to be placed shall be finished accurately to the dimensions shown on the drawings or prescribed by the engineer-in-charge and the surface so prepared shall be moistened with the water and tamped or rolled with suitable tools or equipment for the purpose of thoroughly compacting them and forming firm foundations upon or against which to place the concrete structures.

7.01.02 If at any point in foundation excavation, material is excavated beyond the lines required to receive the structure; the same shall be replaced with M-10 grade concrete at the contractor's expenses.

7.01.03 All necessary precautions shall be taken to preserve the material below and beyond the lines of all excavation in the soundest possible condition, any and all excess excavation or over excavation performed by the contractor for any purpose or reason except as may be ordered in writing by the engineer-in-charge and whether or not due to the fault of the contractor shall be at the expense of the contractor.

7.01.04 During the progress of work, it may be found necessary or desirable to vary the slopes or the dimensions of the excavations from those shown on the drawings or established by the engineer-in-charge. The contractor shall be entitled to no additional payment above the unit rates in the schedule of bids for excavation by reason of such changes. Shoring or protective arrangement may be used by the contractor to dig to steeper slopes than those shown on the drawings and for maintenance of excavation. Such arrangement shall be the full responsibility of the contractor but the engineer-in-charge may direct the contractor to strengthen or extend any such arrangement if he finds the same to be inadequate and contractor shall immediately comply with such instructions.

7.01.05 **Disposal:** All suitable material from excavation from the foundation of the structure under this contract shall be used in the back fill so far as practicable and as determined by the engineer-in-charge. Suitable materials obtained from excavation, if used for the purpose said above, shall be allowed free of cost to the contractor. However, the royalty charges shall be paid by the contractor.

All lifts for ascending or descending in excavation work shall be deemed to be included in the tendered rates of earth work in excavation. Where required by the engineer-in-charge, the piles of excavated material shall be levelled and trimmed to reasonably regular lines and the contractor shall be entitled to no additional payment on account of this requirement.

The disposal of excavated material (if any) shall be subject to the approval of the engineer-in-charge and within 100 M from the structure.

### 7.02 **Measurement and Payment:**

Cross sections at the site of excavation shall be taken just prior to commencement of work under this contract and grades and lines shall be fixed for excavation. The final excavated section shall be taken on completion of excavation and plotted on the initial sections previously taken. For intermediate, payments, cross-sections along the established lines and grades will be taken as considered expedient by the engineer-in-charge to determine the quantity to be paid for in any running bill. In such cases, it may not be necessary to take cross-sections along every line or original cross-section. However, the judgment of engineer-in-charge in such matters will be final and binding on the contractor. All measurements for excavation will be based on this survey subject to the condition that needless excavation shall not be measured. Where excavation is done to steeper slopes than the grades specified by the use of shorting and timbering, the grades fixed for excavation shall be taken as the basis of measurement, but no payment shall be made for timbering and shoring. However, where use of timbering and shoring is made for excavation at steeper slopes under the specific instructions of the engineer-in-charge, the payment for excavation shall be made to such steeper slopes as are specified by the engineer-in-charge and the payment for timbering and shorting required therefore shall be made at the unit rate for this item in the schedule of bids.

The rate for "open excavation" shall include removal, handling and disposal of all material wet or dry encountered within the scope of these specifications, fencing, lighting, clearing the site and all other operations necessary for the excavation and protection of works. The rates for excavation for all classes shall include all lifts as well as lead up to 100 M. Payment shall not be made for any and all over excavation made beyond the prescribed grades and lines by contractor whether or not due to his negligence, defect, and oversight or for his convenience. However, if the contractor is required to dispose of the earth beyond 100 M radius, then additional payment shall be made according to the prevailing Schedule of Rate of the circle or the actual cost of disposal whichever is less.

## **8.0 STEEL CENTERING & SHUTTERING**

8.01 Forms for placing concrete whether plain or reinforced shall be provided by the contractor and shall be steel plates not less than 3mm thick stiffened by angle iron or other approved material. The shuttering shall be supported on battens, beams, props and wedges and properly cross-braced together so as to make the form work sufficiently rigid, strong and stable to support the wet concrete and workers and vibrations and should not yield on working and laying concrete. Beams for centering shall be carried and supported on the walls with double wedges underneath and supported at intervals with props. Props shall consist of ballies or brick pillars in mud mortar. Ballies props shall rest on double wedges placed over wooden sole planks of 4cm thickness so as to facilitate tightening and casing of the centering and shuttering. In case of brick pillars the wooden sole plank shall be provided at the top of pillars and double wedges inserted in between the sole plank and beam of the centering and shuttering. The type, shape, size, quality and strength of all materials, of which the forms are made shall be different depending upon the requirement of different items of work and shall be subjected to the approval of the Engineer-in-charge

Steel shuttering fabricated from new steel plates of minimum 3 mm thickness or as approved by the Engineer-in-charge shall be used. However, new steel shuttering fabricated for the work at site may be allowed to be repeated during execution of work after necessary repairs and maintenance. The shuttering fabricated for this work shall be marked with special marking.

- 8.02 Forms shall be used wherever necessary to confine the concrete and shape it, to the required lines or to ensure against contamination of the concrete by material caving or sloughing in from adjacent surfaces left by excavation. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete and shall be maintained rigidly in correct position. Forms shall be substantial and unyielding so that the concrete placed in them conforms to the design, dimensions and contours. Form shall be sufficiently tight to prevent loss of mortar from the concrete. Additional form ties shall be used as and when necessary.
- 8.03 After the forms are erected and before any concrete is placed, the forms shall be inspected for line, level, and grade with respect to the structures, adequacy of bracing, freedom from dirt, fixtures, keyways, openings etc. No concrete shall be placed against the forms unless the forms have been checked and placement of concrete permitted by the Engineer-in-charge. Such inspection and approval shall however not absolve the contractor of his responsibility for the sufficiency and stability of the forms.
- 8.04 Wood sheathing or lining shall be of such kind and quality or shall be so treated with the approval of Engineer-in-charge that there will be no chemical deterioration or discoloration of the formed concrete surfaces. The type and condition of form sheathing and lining, the ability of the forms to withstand distortion caused by the placement and vibration of the concrete and the workmanship used in form construction, shall be such that the formed surface after being finished will conform to the applicable requirements of these specifications pertaining to finished or formed surface. Shuttering for piers, abutments and all other surfaces exposed to view may be of plywood and of quality and strength as specified by the Engineer-in-charge. Plywood shuttering used in a working season shall not be allowed to be used in the subsequent working season. New plywood shuttering shall be used in each working season.
- 8.05 Shuttering shall be kept clear of wall bearing and made to rest on cross beams or battens.
- 8.06 Embedded metal rods used for holding forms shall remain in position and shall terminate not less than 38 mm in the concrete clear of the formed surfaces where the maximum size of aggregate in the concrete is 38 mm or less and not less than 50 mm in the concrete clear of the formed surfaces of the concrete where the maximum size of aggregate is 75 mm or more. Embedded fasteners on the ends of rods shall be such that their removal will leave holes of regular shape. Embedded bolt ties for holding forms will not be permitted in concrete wall to be subjected to water pressure or where the concrete surfaces through which tie would extend, will be permanently exposed. Bolt ties shall be cut off flush with the surfaces of the concrete after the forms are removed.
- 8.07 At the time when concrete is placed in the forms the surface of the forms shall be free from encrustations of mortar, grout or other foreign materials that would contaminate the concrete or interface with the fulfillment of the specification requirement relative to the finish of formed surfaces. Before concrete is placed, the surface of the forms shall be oiled with commercial form oil or treated with other form coating material that will effectively prevent sticking and will not soften or stain the concrete to become chalky or dust producing. For wood forms, form oil shall consist of straight refined, pale paraffin based mineral oil or other coating material, to the satisfaction of the Engineer-in-charge. For steel forms, form oil shall consist of refined mineral oil suitably compounded with one or more ingredients which are appropriate for the purpose or other suitable form coating material.
- 8.08 To facilitate satisfactory progress with the specified curing and enable earliest practicable repair of surface imperfections, forms shall be removed as soon as concrete has hardened

sufficiently to prevent damage by careful form removal as per approval of Engineer-in-charge. Forms on upper sloping faces of concrete such as forms on the water sides of warped transitions, shall be removed as soon as concrete has attained sufficient stiffness to prevent sagging. Any repairs needed for treatment required on such sloping surfaces shall be performed at once and be followed immediately by specified curing. Centering and shuttering shall not be removed before 14 days in R.C.C. beams and 10 days for slabs. In general for loaded concrete work, the supporting timbering shall not be removed for 28 days after laying but when the concrete member does not receive its full stress, supporting timbering may be removed after the 14<sup>th</sup> day only after the approval of the Engineer-in-charge.

- 8.09 Suitable scaffolding for centering and shuttering shall be provided by the contractor whenever necessary and modify or strengthen the scaffolding if required by the Engineer-in-charge but the contractor shall always remain responsible for the safety of workman and works as well as for the payment of compensation for any damage or injury which may be caused by the failure of scaffolding. Nothing shall be paid on this account by the Government.
- 8.10 Centering shall be removed slowly and carefully without any shock, not earlier than 10 days. After removal of the centering if the work is found defective and rods are exposed and visible to sufficient extent, the work shall be dismantled and reconstructed at contractor's cost. If rods are exposed at few places only, they should be covered with rich cement mortar of 1: 2 proportion by pressing the mortar into the gaps immediately after removal of the centering while the laid work is green.

8.11 **Measurements and Payments:**

The cost of all labour, T and P, materials for steel shuttering for any necessary treatment or coating of shuttering and removal of shuttering shall be included in the unit rate tendered in the schedule of quantities and bids for the items for which centering and shuttering is required. The net area of the shuttering work shall be measured in square-metres and paid as per item of bill of quantities.

**9.0 CEMENT CONCRETE WORK**

- 9.01 The work covered by this contract consists of furnishing with cost of all labour, materials and equipments in accordance with the provisions of the conditions of the contract and as per latest I.S. code and performing all works for the manufacturing, transporting, placing, furnishing and curing of concrete of the structures included in this contract. The cost of supplying coarse and fine aggregates including all taxes, octroi charges and royalty shall be included in the unit rates tendered in the schedule of bids for the item or work in which aggregates are used. Unit rate shall include all expenses in screening, washing classifying, blending, storing, handing, hauling and other necessary operation on the aggregates. The contractor shall not be entitled for any compensation on account of the rejection of materials not being of proper specification.

9.02 **Composition:**

Concrete shall be composed of Portland / pozzalona cement, water, fine and coarse aggregates and any admixtures if considered necessary. The design of each concrete mix will be based on the water cement ratio necessary to secure a plastic, workable mix suitable for the specific condition of placement and when properly cured shall give a product having durability and strength in accordance with the requirement of the structures covered by these specifications. Cement in bags will be supplied by the Government as per schedule 'B'. Cement consumption in different grade of concrete is given in schedule-C annexed with this tender. Fine and coarse aggregates and water have to be arranged and supplied by the contractor. The proportioning of cement and aggregates in any particular type of concrete will be by weight.

The contractor shall provide all necessary equipment and plant to determine and control the actual amounts of material entering each batch. The proportions will be changed, whenever in the option of Engineer-in-charge such change are necessary in order to maintain the standard of quality required by specifications. The water cement ratio will be fixed by the Engineer-in-charge. The mix design and water cement ratio will be communicated by the Engineer-in-charge to the contractor before the work is taken up and also whenever a change is desired. Required numbers of weigh batchers shall have to be arranged by the contractor at his own cost. The equipment shall be capable to determine accurately and to control the prescribed amounts of the various materials, including water, cement admixture, pozzolona, sand and each individual size of coarse aggregate entering the concrete and combining them to give a uniform mix within the prescribed time and discharging this mix without segregation. The equipment and its operation shall all times be subjects to approval.

Any waste resulting from faulty operation of batching equipment, over batching of material or other causes will be borne by the contractor. All records and charts of the batching operations shall be prepared as required herein and shall become the property of the Government. However in special circumstances, volumetric batching may be allowed by the Engineer-in-charge. Hand mixing may be allowed for very small quantity of concrete as per direction of Engineer-in-charge.

9.03 **Quality:**

Sampling for aggregate and cement concrete shall be carried out in accordance with the relevant specification of B.I.S. Samples for testing concrete as mixed will be taken by Government for all classes of mix when being delivered from the mixer or placed in the forms and tested in accordance with the relevant specifications of B.I.S. The contractor shall not be entitled to any payment for samples of materials taken by Government agency for tests. The contractor shall provide such facilities as the Government may consider necessary for the ready procurement of representative test samples. The mixture if found defective on test shall not be used in any case and such defective work produced by the defective mixture will be removed by the contractor at his own cost for which no payment shall be made.

9.04 **Fine Aggregate:**

- (a) **General:** The term fine aggregate or 'sand' is used to designate the aggregates in which the maximum size of particles is 4.75 millimeters. The contractor shall be responsible for the investigation and procurement of sand of the quality specified herein. Depending upon availability and suitability, it may be necessary to supplement the river sand with manufactured sand from quarried rock. Manufactured sand may have to be used entirely, or blended with river sand to obtain a satisfactory grading of the fine aggregate.

In the case of river sand, the source from which it is obtained shall be subject to the approval of the Engineer-in-charge. The fine aggregate, whether it is a river sand, crushed sand or a mixture of both in proportions as required by the Engineer-in-charge, shall comprise of all aggregate particles having a maximum size upto 4.75 mm. The manufactured sand, if used, shall be crushed out of approved stone and the contractor shall take suitable measures to reduce the blowing of dust at each point of handling of this sand.

All fine aggregate obtained from the river bed shall be washed to remove impurities, silt and clay. Aggregate manufactured from natural rocks shall be free from dust by either washing of or any other approved process to the satisfaction of the Engineer-in-charge. The fine aggregate shall be clean, free from excess mica, silt particle, organic and chemical impurities.

The sand shall consist of hard, dense, durable, uncoated rock fragments. The maximum percentage of deleterious substance in the sand as delivered to the concrete mixer shall not exceed 5% as specified in I.S. code 383-1970 or as modified in subsequent amendments of the code. Sand may be rejected if it does not conform to the requirements as specified in I.S.: 383-1970 and its subsequent amendments.

- (b) **Grading:** The fine aggregate as delivered to the concrete mixers or as incorporated in the concrete mix shall be well graded within such limits as may be specified by the Engineer-in-charge. During normal operations, the grading of the fine aggregates shall be controlled so that the fineness modulus of sand as delivered to the mixer shall not be less than 2.0. In exceptional cases, the fine aggregate of fineness modulus less than 2.0 may be permitted by the Engineer-in-charge provided that extra cement consumption on this account shall be at contractor's cost. The recovery of cost of cement for such extra consumption will be made at the issue rates as given in schedule 'B'. Any classifying, batching or other operations on the fine aggregates required to meet the gradation shall be done by the contractor and the cost thereof shall be included in the unit prices for the items of work in which the fine aggregate is used.

9.05 **Water:**

Water used for mixing and curing shall conform to latest I.S. code. It shall be clean and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or other substances that may be deleterious to concrete or steel. Potable water is generally considered satisfactory for mixing concrete.

The contractor shall make his own arrangements for pumping of water required for washing aggregate, mixing in concrete and curing etc. including their maintenance and operation at his own cost. Contractor will construct storage tanks at his own cost for construction work.

9.06 **Coarse Aggregate:**

- (a) **General:** The coarse aggregate shall consist of natural or crushed aggregate as determined by Mix design or as directed by engineer-in-charge. The coarse aggregate should be sound and free from flaws, injurious veins, crystals, weathered particles, organic matter and sand, clay, trash etc. and shall be washed before used. Coarse aggregate shall consist of uncoated, hard strong, dense and durable pieces. The percentage of deleterious substances in any size of coarse aggregate as delivered to the mixer shall not exceed 5 percent by weight. The contractor shall have to get the quarry / crushing plant approved by Engineer-in-charge at his own cost.
- (b) **Sampling and Testing:** The sampling and testing such as abrasion test, soundness test and specific gravity test etc. shall be done in accordance with the applicable provisions of I.S.: 383-1970 and any subsequent amendment thereof. The contractor shall provide such facilities as may be considered necessary for the ready procurement of representative test samples from aggregate processing / screening plant, storage piles and batching plant, mixing plant or mixers.
- (c) **Storing and Handling :** The contractor shall keep all time a live storage of coarse aggregate at site so as to last for the works without replenishment for at least one fort- night. The aggregate of the different grades shall be stored in separate stock piles which shall be so located as to prevent mixing of the material of the different pile and also to prevent undesirable material from mixing up with the aggregate in the piles. In case of mixing up, the contractor shall separate the different grades and remove the undesirable material by screening and / or washing. The aggregate shall be so deposited into or removed from stock piles as not to cause any change in uniformity of grading.

9.08 **Proportioning of Concrete:**

- (a) i. The proportion of all materials, entering in to the concrete shall be as directed by the Engineer-in-charge. The contractor shall provide all necessary equipment and plant to determine and control the actual amount of material entering each batch. The proportions will be changed whenever in the opinion of the Engineer-in-charge, it is necessary in order to maintain the standard of quality required by the specifications.
- ii. Quantity of water to be used for each type of concrete, will be determined by the Engineer-in-charge. Only the quantity of water so fixed will be used for preparing the concrete. The water measuring device to be used by the contractor will be such that it discharges the measured quantity of water in to the mixer quickly without any spillage, and that no leakage occurs from it when it is closed. Adjustment in the mixing water for moisture content in aggregate shall also be made from time to time as per direction of the Engineer-in-charge.
- iii. Laboratory tests to determine the strength of concrete produced be performed by the Government at frequent intervals. Should these tests indicate the necessity of adding more cement than specified by the Engineer-in-charge, depending upon the size, type and gradation of aggregated and pozzolona used and as per structural requirements as determined by the Engineer-in-charge, he will intimate in writing to the contractor the extra quantity of cement to be added in addition to the proportions fixed and the contractor will carry out the instructions. The contractor shall be paid extra cost for the use of this additional cement at the issue rate of cement as per schedule 'B'.
- iv. Similarly, if on the basis of laboratory test the contractor is required to use less cement than specified in the proportions, a corresponding reduction in the item rate for the less consumption of cement will be made at the issue rate as per schedule 'B'.
- v. Concrete mixes will be designed to use the largest size and the maximum amount of coarse aggregate placeable in the various parts of the structures. Any variation in the quantities of coarse and fine aggregate or other ingredients due to change in the quantity of cement per cubic meter of concrete or on any other account shall be deemed to be included in the unit rates of respective items of concrete as given in the schedule of bids.

(b) **Place ability (Workability):**

The concrete mixes which have been designed and tested will be adjusted in the field from time to time to meet the various conditions encountered during the construction as directed by the Engineer-in-charge, unless otherwise provided, the concrete shall be so controlled that the slump at all time is kept between 25 mm to 75 mm when tested in accordance with I.S.: 1199-1959 or its subsequent amendments.

(c) **Batching and Mixing Concrete by Weight:**

- i. Batching of ingredients of concrete shall be done by weight for the prescribed mix design. For weigh batching, the plant should be able to handle all the grades of coarse aggregate, fine aggregate, water and cement, admixtures and pozzolona. Admixtures and pozzolona can be batched by weight separately and added directly to the concrete mixer. The weigh batcher should be capable of weighing, controlling and determining accurately the prescribed amount of various materials for each batch. Facility should be available to obtain sample of each ingredient entering the mixers. Facility shall also be available for periodical checking of correctness of weigh batcher by the Engineer-in-charge. The contractor shall maintain a record of the number of batches mixed and all other details required for checking the correctness of the mix as per directions of the Engineer-in-charge.

- ii. Suitable mixer so as to mix uniformly the various in-ingredients and discharging the mix without segregation should be used. Hand mixing may be allowed only for very small quantity of concrete to be placed at a time. Preferably tilting type of mixer should be used. For non-tilting type mixers, suitable device shall be used and care shall be taken to avoid segregation of large size aggregates.
- iii. The water measuring device shall be such that no leakage may occur when the valves are closed and water is discharged quickly into the mixer without any spillage.
- iv. The time for obtaining uniform mix for particular type of job shall be initially prescribed by the Engineer-in-charge and the same time shall thereafter be adhered to for mixing all subsequent batches of that type of concrete unless revised by the Engineer-in-charge. The adequacy of mixing shall be determined in accordance with I.S.: 1199-1959 and its subsequent amendments / revisions.
- v. The Engineer-in-charge may relax any of the conditions mentioned here in above if he is satisfied with the results.

(e) **Conveying:**

Concrete shall be conveyed from the mixer to forms as rapidly as practicable by methods which shall prevent segregation or loss of ingredients. There shall be no vertical drop greater than 1.5 meters except where suitable device is provided to prevent segregation and where specifically allowed by the Engineer-in-charge. Belt conveyers, chutes of other similar equipment in which the concrete is delivered to the structure in a continuously exposed flow, will not be permitted except for very limited or isolated sections of the work and only if approved by the Engineer-in-charge. Such equipment shall be suitably modified by the contractor at his own cost to prevent segregation to suit the working condition of any specific part of the work of concrete.

9.10 **Placing of Concrete:**

- (a) Concrete shall be placed rapidly into the corners and angles of the forms and around all reinforcement and embedded items without permitting the material to segregate. Concrete shall be deposited as close as possible to its final position in the forms so that movement of concrete within the forms and consequent segregation are reduced to a minimum. The placing of concrete shall be controlled so that the concrete may be effectively compacted into horizontal layers not exceeding 300 mm in thickness with a minimum of lateral movement and accompanying tendency for segregation. Free water collected in depressions in the forms shall be removed by bailing prior to placing of fresh concrete. The method shall be subject to the approval of the Engineer-in-charge. Where the concrete is to be laid in layers, the contractor shall make suitable arrangements to scrub the surface of the previous pour. This scrubbing shall be required to be done soon after the placement of concrete. Fresh layers of concrete shall not be allowed to be laid unless cleaning of the surface of the previous pour has been done as explained earlier. To lay further concrete on old concrete laid during previous working season, the old surface of concrete shall be leaned and raked by chipping and / or sand blasting as directed by the Engineer-in-charge, so as to make it suitable for receiving fresh layer of concrete. No extra charges shall be payable to the contractor for this work.
- (b) **Time Interval Between Mixing and Placing:**

Concrete shall be placed before initial set has occurred and unless otherwise authorized by the Engineer-in-charge within thirty minutes of release from mixers.

(c) **Concrete on Earth Foundations:**

Unless otherwise authorized, all concrete shall be placed upon clean, damp surface free from standing / running water and never upon soft mud, dried porous earth or upon fills that have not been compacted up to required density or to the satisfaction of the Engineer-in-charge

(d) **Lift in Concrete:**

The permissible depth of concrete placed in one lift or course will be determined by the Engineer-in-charge for each structure. Dowels of T.P. bars if required by the Engineer-in-charge in each lift shall be provided by the contractor. These dowels shall be measured and paid under item of reinforcement. All concrete shall be deposited in approximately horizontal layers not exceeding 0.5 meter in thickness unless otherwise specifically authorized or directed by the engineer-in-charge The placement shall be carried out at such rate all concrete surface shall not have reached their initial set before additional concrete is placed thereon.

Slab shall generally be placed in one course unless the depth is so great the this procedure will produce objectionable results.

(e) **Vibration of Concrete:**

Concrete shall be placed with the aid of mechanical vibrating equipment supplemented by hand spreading and tamping. Vibrator could be petrol / diesel / electric or pneumatic driven. In no case shall vibrators be used to transport concrete inside the forms. The vibrating equipments shall be of the internal type and shall at all times be adequate in number of units and in power of each unit to properly consolidate the concrete. Additional stand by vibrators be kept to replace those which get damaged or go out of commissioning during operation so that concreting in progress does not suffer. Form vibrators shall not be used unless specifically approved by the Engineer-in-charge Internal vibrators shall maintain vibration of not less than 7000 impulses per minute, when in operation while submerged in the concrete. The amplitude of vibration shall be sufficient to produce satisfactory compacting. The duration of vibration shall be limited and necessary to produce adequate compaction without causing objectionable segregation. While compacting each layer of concrete, the vibrating head shall touch the concrete in the upper portion of the under laying layer in the same lift. Subsequent layers of concrete shall not be placed until the layers previously placed have been compacted thoroughly as specified. The disturbance to the reinforcement embedded in concrete shall be avoided.

(f) **Finishing of Concrete Lift Surface:**

The top surface or each lift shall be finished by adequate vibration to produce not only the degree of consolidation desired in the surface layer of concrete but also a surface with the desired degree of roughness for bond with the next lift. Surface vibration or surface working including screening of any kind will not be permitted. In placing concrete, coarse aggregate protruding from the surface of the lift shall be pressed down into the mass during the initial compacting or vibrating operations. All top surface not covered by additional concrete or back fill shall be carried out slightly with higher grade as directed by the Engineer-in-charge and struck off by board finish.

After the top surface of the lift is finally compacted, it shall immediately and carefully be protected form pedestrian traffic, running water, heavy rain or any activity upon the surface which may in any manner affect the setting of the concrete.

**Placing Concrete Through Reinforcement:**

In dropping concrete through reinforcement care shall be taken that no segregation of the coarse aggregate occurs, and spacing of reinforcement bars places is not disturbed beyond the tolerance limit..

#### 9.11 **Construction Joints:**

Concrete surface, upon or against which concrete is to be placed and to which new concrete is to adhere, that has become so rigid that the new concrete can not be incorporated integrally with it, shall be defined as a construction joint. All such concrete surface shall be given the treatment detailed below before the subsequent pour of concrete.

- i. All horizontal construction horizontal joints in the work shall be sloped enough to provide free drainage to clean up water. All horizontal joints in exposed faces shall be sharp, level and in straight line. Each joint shall be prepared to receive the succeeding lift by removing all loose or defective concrete coatings, removed by means of air water jet before the concrete has taken its final set. If the surface of a lift is congested with reinforcing steel, is relatively inaccessible or if for any other reason it is considered undesirable to disturb the surface of the lift before final set has taken place, surface cutting by means of air water jet will not be permitted. In such a case use of wet sand blasting will be required after final set. Where it is not practicable to clean the joints after forms are fixed, the joints shall be cleared by air water jet or wet sand blasting and washed at the last opportunity prior to fixing of the forms. The surface of such lift shall again be washed with air water jet just prior to the placing of the successive lift of concrete in order to remove all foreign or loose material which may have accumulated since the first clean up. The surface of the lift when ready will be covered with an initial layer of mortar of 10 mm thickness of the same cement sand proportion as in the concrete, the surface of concrete before placing the mortar shall be thoroughly wet, and free from any standing or excess water. The cement so used be regarded as bonafide consumption. The cost of mortar shall be treated to be included in the bid prices of cement concrete.
- ii. The methods used in disposing off waste water employed in cutting, washing and rising of concrete surface shall be such that the waste water shall not stain, discolour or affect permanently exposed surface of the structure. The method of disposal of this water shall be subject to the approval of the Engineer-in-charge
- iii. Concrete shall be carefully placed against the faces of the vertical construction joint as not to disturb the water seal etc. whenever the placing of concrete is interrupted long enough so that the concrete has taken its final set the working face joints shall be cleaned and shall receive a coat of 10 mm cement mortar of the same cement sand proportion as in concrete before placing fresh concrete. Suitable shear keys shall be provided in construction joints as per direction of the Engineer-in-charge

#### 9.12 **Replacement of Rejected Concrete:**

Concrete which is not placed and compacted in accordance with these specifications and is, in the opinion of the Engineer-in-charge, of inferior quality shall be removed and replaced by the contractor. The entire cost of removing and replacing such rejected concrete shall be borne by the contractor including cost of all materials required in the replacement.

#### 9.13 **Curing and Protection:**

Concrete shall be suitably protected from injury until final acceptance, giving particular care to all permanently exposed corners and edges. All horizontal surfaces shall be continuously kept wet till the time of next pouring. The surface of all construction joints and all other exposed concrete surface shall ordinarily be kept moist continuously for at least three weeks after placing. The method may be of any approved device. All water used in curing, shall be free from excessive amount of silt, colouring matter and other impurities which may stain the finished work. No fire or excessive heat shall be permitted near or in direct contact with the concrete at any time.

9.14 **Repair of Concrete:**

Repair of concrete shall be performed by skilled workmen and in the presence of an authorized representative of Engineer-in-charge Immediately after removal of form work, the exposed surface will be inspected by a representative of Engineer-in-charge and no repair work will be started till such inspection has been carried out. The contractor shall correct all imperfections in the concrete surface as necessary to produce surface conforming to the requirement specified. Repairs of imperfection on formed concrete shall be completed as soon as practicable after removal of forms and whenever practicable with 24 (twenty four) hours after removal of form. Fines and incrustations shall be neatly remove from surface. Concrete that is damaged from any cause and concrete that is honeycombed, fractured or otherwise defective and concrete which because of excessive surface depression shall be chipped off, repaired and built up to bring the surface to the prescribed lines, with dry pack mortar or concrete as hereinafter specified. Minor honeycombing or surface bubbles may be closed by a slurry of the same cement sand mix as the concrete. Where bulges and abrupt irregularities protrude outside of formed surfaces, the projections shall be reduced by bush hammering and grinding. Off-sets and other abrupt surface irregularities on surface shall be reduced. Dry pack filling shall be used for holes having at least one surface dimension a little greater than the hole depth, for holes left by the removal of fasteners from the ends of form tie rods and for narrow slots cut for repair of cracks. Dry pack shall not be used for filling behind reinforcement or for filling holes that extend completely through a concrete section. Mortar filling placed under impact by use of mortar gun shall be used for holes too wide for dry pack filling and too shallow for concrete filling and not deeper than the far side of the reinforcement that is nearest the surface. Concrete filling shall be used for holes which are greater in area than 0.1 Sq.m. and deeper than 10 cms and for holes in reinforced concrete which extend beyond reinforcement. All materials, procedure and operations used in the repair of concrete shall be subject to approval of Engineer-in-charge All filling shall be bonded tightly to the surface of the holes and shall sound and free from shrinkage cracks after the filling have been cured and have dried. All filling in surface prominently exposed to view shall contain sufficient white Portland cement to produce the same colour as that of adjoining concrete. The cost of all materials including cement, labour and equipment used in the repair of concrete which is found to be damaged or defective or not with in the specified limits before final acceptance of the work shall be borne by the contractor.

9.15 **Finishing of Concrete Surface:**

Finishing of concrete surface which are prominently exposed to view shall be performed only by skilled workmen according to the direction of the Engineer-in-charge The finish shall have uniform and even surface and colour. The finished surfaces shall have as uniform as possible without any rendering.

9.16 **Strength of Concrete:**

Some cement concrete cubes or cylinders in the standard mould will be cast as per standard procedure for testing of the strength of the concrete, done for the day. These cubes will be cast for the mix at the time of delivery from mixer and will be cured properly in a tank of adequate capacity without any injury to them. All labour, T&P and tank etc. will be provided by the contractor at his own coat. One third cubes will be tested after 7 days and balance cubes after 28 days. The cubes will be marked properly for identification. The average strength of all concrete shall not be less than 95% (Ninety five percent) of the specified strength. If the average strength of particular mix is less than the specified strength, the

concrete of that particular mix may either be rejected and got replaced or may be accepted at the discretion of the Engineer-in-charge but payment shall be made at reduced rates in proportion of actual strength.

9.17 **General Appearance and Tolerances:**

It must be ensured that the construction of structures is exactly according to designs and particular attention is to be paid for their general appearance. Bad form work for concrete structures is mainly responsible for unacceptable appearance of structures. Use of steel form work should be made for important structures and these forms should be properly cleaned and oiled before reuse. Many a time these forms are not held in place rigidly and they get displaced during the process of vibration of concrete. The following maximum tolerances are permissible.

<b>Item</b>	<b>Details of item</b>	<b>Tolerances</b>
Linear Lines	in 6 m length	1.25 cm.
	in 12 m length	1.90 cm.
Plumb Lines	in 3 m height	1.00 cm.
	in 6 m height	1.50 cm.
	in 12 m height	2.50 cm.
Cross section	- 6 mm to + 12 mm	
Inside dimension	0.5%	
Thickness of slabs	- 6 mm or 2.5%	whichever is greater
	+ 12 mm or 5.0%	
Reinforcement bars	for 2.5 cm. cover	5 mm
	for 5.0 cm. cover	10 mm
	for 8.0 cm. cover	12.5 mm
	for 10.0 cm. cover	25.0 mm
Displacement or eccentricity	+ 5 cm or 2% whichever is less	

9.18 **Measurement and payment of Concrete:**

- i. Measurement of concrete for payment will be made only to the lines of the structures as indicated in the drawings as subsequently modified by the Engineer-in-charge. In measuring concrete for payment the volume of all recess, passage, openings, cavities and depressions except reinforcement bars, bolts and draining pipe etc. will be deducted. In the event of foundation having been excavated beyond the required lines as per drawings or as directed by the Engineer-in-charge, the contractor shall fill the same with the similar grade concrete as in the foundation and no extra payment shall be made on this account. Any change in the proportion of the concrete mixes will not entitle the contractor to any adjustment in the rates except the cost of cement. Besides the mode or measurement as described above in this para, the quantities of concrete shall also be measured by recording the number of mixes actually placed and used in the concrete. The lesser of the quantities worked out by above alternatives of mode of measurements shall be paid to the contractor.
- ii. The Government will specify strength of concrete to be laid by contractor. Laboratory test as per standard practice would be carried out with the use of specified aggregate and cement to find out the quantity of cement concrete required to give the desired strength of structure. If the consumption of cement is less or more than to specified in the schedule 'C' consultation enclosed with the tender, the cost of the difference in cement consumption shall be deducted or added accordingly.

- iii. The cost of cement consumed in the slurry or cement mortar in construction joints will be recovered at the rate mentioned in schedule 'B'. The proportion of cement and sand in the slurry or cement mortar will be the same as for corresponding concrete. For purpose of measurements of concrete payable to the contractor, the slurry of cement mortar in construction lift joints shall be treated as part of cement concrete.
- iv. All the relevant records regarding the quality of work shall be maintained by the contractor according to the instruction issued by the engineer-in-charge.
- v. Initially only 90% payment for concrete including payment for cement variation if any, will be made to the contractor. Out of the balance 10% payment 5% will be paid after repairs, finishing and proper curing and balance 5% on final clean up of the concrete surfaces.

## **10.0 REINFORCEMENT IN CONCRETE WORK**

10.01 The contractor shall furnish, cut, bend and place all steel reinforcement including rods, as indicated in the drawing or otherwise required or as directed by Engineer-in-charge The steel reinforcement will be provided by the employer at the rate and site mentioned in schedule 'B'. This item will include cost, carriage of all materials, shaping, cutting, bending, binding and placing in position of reinforcement steel with the help of spacer blocks and metal chairs including cost of binding wire etc. The contractor shall tender rate per metric tonne of reinforcement including cost of steel. The work shall be carried out as per the latest I.S. code.

### **10.02 Quality of Reinforcement:**

All steel used for reinforcement shall be free from oil, greases, dust, mortar, scales, kinks, rust or bends other than those required as per drawings. Reinforcement drawings showing bar placement details and bar bending details will be furnished by the Engineer-in-charge All bars shall be bent cold to the shapes and dimensions as per drawings and as directed by the Engineer-in-charge Heating of the bars for bending shall not be allowed. The radius of all bends shall not be less than four times the diameter of the bar or as directed by the engineer-in-charge All steel supports, stays, chairs and spacers required to hold the reinforcement in position will be get embedded in the concrete.

### **10.03 Placing of Reinforcement:**

- i. Before placing the reinforcement bars in position all bars shall be thoroughly cleaned by wire brush. All bars shall be of the size and length as depicted in the construction drawings and no substitution shall be made unless approved by the Engineer-in-charge
- ii. All reinforcement shall be placed in position well in advance of concreting to permit inspection, checking and measurements in accordance with detailed drawings and secured in position so that these are not disturbed during placing and vibration of concrete.
- iii. Vertical shear steel stirrups and spacers shall be securely fastened to the longitudinal bars by means of binding wire or tack welding, if approved by the Engineer-in-charge Wherever possible the contractor shall remove the spacer blocks, provided their removal does not disturb the concrete. Exposed reinforcement intended for bending or dowelling between two placement of concrete shall be protected from being disturbed and shall be thoroughly cleaned prior to subsequent concreting.

### **10.04 Joint in Reinforcement Bars:**

- i. The position of joint in reinforcement bars shall be subjected to the approval of the Engineer-in-charge These shall be suitably staggered to avoid the concentration of joints at one section. Joints in the center of span shall be avoided as far as possible. Care shall be taken that the joints in reinforcement bars be provided minimum.

- ii. The reinforcement bars shall be joined by simple over lap or welding. The approximate procedure for which different types of joints may be adopted as enumerated below :
- |                           |                      |
|---------------------------|----------------------|
| Bars below 20 mm diameter | Overlap joint        |
| Bars 20 mm to 25 diameter | Lap welded joint     |
| Bars above 25 mm diameter | welded spliced joint |
- The range is subject to modification at the discretion of the Engineer-in-charge

iii. **Overlap Joints :**

The minimum length of overlap joints shall be 45 times the diameter of the bar securely tied down by 16 S.W.G., soft annealed steel binding wire or tack welded.

iv. **Welded Joints :**

Reinforcement bars of the diameter 20 mm to 25 mm shall be provided with lap welded joints. The length and thickness of weld shall be such that the strength of joints shall not be less than that of bar. An overlap of 15 times the diameter of the bar shall be provided for lap welded joints.

Reinforcement bar of diameter more than 25 mm shall be provided with welded spliced joints. The splice joint should be such that the strength of the joint shall not be less than that of bar.

- v. The welding shall conform to I.S. Code of practice of welding for general construction in steel or its subsequent amendments. The joints shall be staggered in such a way that there should not be more than 33% splice or laps in one line.

The welders shall have the requisite experience and a test certificate of competent authority. Welding electrodes should be of standard and approved make.

10.05 **Measurement and Payment:**

Steel reinforcement shall be placed according to the construction drawings or as per direction of Engineer-in-charge. Measurement of steel shall be made on the basis of the steel actually placed in position in various structure. Standard hooks and overlaps, bends, laps and angle iron used in splices in welded joints, shall also be measured. The payment for the above shall be made at the unit price per MT. tendered in the schedule of quantities and bids. No payment shall be made for additional steel used in making of the stay chairs and spacers etc. This use shall however be considered as bonafide consumption of steel. The additional length of the bars placed by the contractor with the directions of the Engineer-in-charge for the defect in placement may be allowed to remain in the structure but will not be measured for payment, however this shall also be treated as bonafide consumption. No extra payment shall be made for welding in welded lap and splice joints. The expenditure on this account shall be included in tendered rates of reinforcement steel.

11.0 **JOINTS AND SEALS**

Concreting shall be continued upto predetermined construction joints indicated on the construction drawing or / and as specified by the Engineer-in-charge in all the structures. The contractor shall suitably form the concrete work as per detailed plans for construction joints as shown in the construction drawings. However, if concrete has to be left at a construction joint which was not predetermined as per drawings or as per directions of the Engineer-in-charge, the cost of shuttering and preparation of surface of concrete for receiving subsequent concrete shall be done at the cost of contractor. The joint shall be stepped in vertical plane and the vertical faces shall be provided with shear keys. The cost of all such operations shall be borne by the contractor. Provisions of I.S.: 4461-1979 or its latest amendments shall be followed for this work.

A vertical lift joint in the concrete layers shall be provided with shear keys as per design supplied and at the locations directed by the Engineer-in-charge Nothing extra shall be payable for providing shear keys in the concrete surface of for preparation of the old concrete surface to receive new concrete as per specifications given in relevant para.

**G.P. Seals :**

In case construction joint or vertical lift joint has to be made water tight, a G.P. seal of suitable design as per construction drawings or as approved by the Engineer-in-charge shall be provided at the joints. The Galvanized steel plate to be used shall be plain conforming to I.S.: 277-1977 or its latest amendments. Provisions of I.S.: 4461-1979 or its latest amendments shall be followed for this work. The payment of G.P. seal at such joints shall be made as provided in the bill of Quantities.

(i) **Nomotex Board:**

The preformed strips of the fibrous material such as nomotex board or other suitable natural or artificial fibers of cellular nature of the required thickness shall be provided according to the construction drawings. Preformed strips shall not be deformed or broken by twisting, bending or other handling when exposed to atmospheric conditions. Pieces of the joint filler that have been damaged shall be rejected. The payment shall be made as provided in the bill of Quantities.

(ii) **PVC Water Stops:**

The expansion / construction joints shall be made completely watertight as per design shown on the construction drawings by laying and fixing P.V.C. water stop conforming to the relevant Indian Standards. The payment shall be made as provided in the bill of quantities excluding the cost of P.V.C. water stop which shall be supplied by the employer free of cost at the Govt. stores as mentioned in Schedule 'B'.

(iii) **Copper Water Stops:**

The copper water stops shall conform to the size and shape shown in the construction drawing or as directed by the Engineer-in-charge It shall be cut to proper shape and size, brazed at bends and properly fixed with shuttering.

The sealing strips shall be of good malleable quality of 22 gauge 300 mm wide as shown in the construction drawings and should be suitable for water seals in hydraulic structures. The material shall conform to I.S.: 1550-1967 or its latest amendments.

Representative properties of copper are given below :

i.	Tensile strength	2194 Kg / cm <sup>2</sup>
ii.	0.2% proof stress	1125.18 Kg / cm <sup>2</sup>
iii.	Elongation percent	55%
iv.	Fatigue limit	689.17 Kg / cm <sup>2</sup>
v.	Corrosion fatigue limit in well water	703.23 Kg / cm <sup>2</sup>
vi.	Corrosion fatigue limit in saline water	703.23 Kg / cm <sup>2</sup>
vii.	Coefficient of thermal expansion (25–100 <sup>0</sup> C)	16.6 x 10 <sup>-6</sup>
viii.	Hardness, B.M.N. (max.)	50

The water stop shall be embedded in green concrete having minimum thickness of 15 cms on either side. It shall be carefully joined and brazed together so as to form continuous water tight diaphragm in the joint. While concreting, care shall be taken that coarse aggregate to not surround and damage the seals. Adequate provision shall be made to support and to protect the sealing strips during the progress of the work.

Copper seals shall generally be used at expansion / contraction and settlement joints.

The tendered rate shall include supply of copper sealing strip, its handling, cutting, forming, brazing, fixing and maintaining them in position, along with coating of the seals by approved materials. The overlaps shall not be paid extra. Payment shall be made under relevant item of Bill of Quantities.

(iv) **Expansion Joints in Trough and Approach Bridge:**

- a) Expansion gap between successive spans shall be covered by suitable joints called expansion joints which shall be constructed according to the details shown on the construction drawings and as directed by the Engineer-in-charge. The material used shall conform to I.S.: 3370 (Part-I) – 1965 or its latest amendments.
- b) The position of all the bolts casted into concrete and holes drilled in plates shall be accurately determined from templates.
- c) Expansion joints shall have good riding quality and should not cause inconvenience to any class of road user. When a joint would present a large smooth metal area at the road surface, it shall not cause a skidding hazard. The joint shall not generate excessive noise or vibration during the passage of the traffic.
- d) The expansion joint shall be measured in run metres as provided in the bill of Quantities.
- e) The tendered rate shall include the cost of all material including stainless steel bolts, labour, equipment and any other incidental charges for fixing the joints complete in all respects in accordance with the above mentioned specifications.

**12.0 EARTH WORK FOR CANAL CONSTRUCTION**

12.01 **General:**

The earth work shall be executed as per latest I.D. specifications and I.S.: 4701–1968 or its latest amendments.

12.02 **Clearance of Land:**

Before starting excavation or placing earth for embankment or spoil banks, land shall be cleared off all trees, bushes, vegetation, rubbish roots etc. The material thus recovered shall be the property of Government and shall not be disposed off except as approved by the Engineer-in-charge. The land shall be maintained free from any growth and vegetation during progress of construction works.

The total width of cross section shall be scrapped to a depth of about 5 cm. to 8 cm. and shall also be cleared of all humus to the required depth and earth so obtained shall be removed from site by contractor for which nothing extra shall be paid to him.

12.03 **Drawings:**

All work shall be carried out in accordance with the drawings to be supplied by the engineer-in-charge from time to time. These shall include index map, longitudinal section, cross sections of embankment and borrow reaches, planning of earth work for various slices.

The contractor shall layout the lines for excavation, marking width of channel at top, side slopes, central line and lines showing area of the banks by degbelling at his own expenses as per instructions of the Engineer-in-charge.

12.04 **Profiles and Reference Pillars:**

Profiles to indicate the section to be excavated shall be constructed at regular intervals of 150 meters or closer or as ordered by the engineer-in-charge before any earth work is started. No extra payment shall be made for making such profiles.

Reference pillars shall be fixed by the contractor at his own cost at every 100 meter or closer or as directed by the engineer-in-charge at suitable places. The contractor shall maintain these intact during the progress of work and no extra payment shall be made on this account.

12.05 **Earth Work in Excavation:**

Before commencement of excavation in any reach the contractor shall obtain in writing from the engineer-in-charge, instructions and schedule of quantities in regard to the disposal and utilization of the excavated material which might be in excess of the requirements for making banks in any reach.

The contractor shall excavate whatsoever substances may be encountered to the depth of excavation as shown on the cross section of the channel. Excavation to be carried out shall conform strictly to the plans and levels shown on the profile of excavation in the cross sections. The bed of the channel will have definite gradient, longitudinally as indicated in the L-section and will be kept level transversely unless otherwise specified. The side slopes of excavation will be excavated to the gradient prescribed in the drawing and shall be neatly finished.

All the roots or other protruding material shall be removed from bed of the channel by the contractor at his own expenses.

Excavation below the prescribed level will not be paid for excess excavation below required bed level or on side slopes shall be back filled at contractor's cost, with selected material and thoroughly compacted as per direction of Engineer-in-charge.

If during excavation, soil mixed with kankar or bajri etc. is encountered, it shall also be excavated by the contractor without any extra payment except that where block kankar of more than 10 mm dimension or pure shingle is excavated. It shall be cleared and stacked outside the toe of bank at the site to be indicated by the Engineer-in-charge. This shall be entered separately in measurement book. The material thus collected shall be paid extra at the rate as per sanctioned schedule of rates of the District deducting 15% for voids.

12.06 **Borrow Areas:**

Borrow area (if required) shall be specified by the Engineer-in-charge.

All areas required for borrowing earth for embankment shall be cleared of all trees and stumps, roots, bushes, rubbish and other objectionable material-particular care shall be taken to exclude all organic matter from the material to be placed in embankment. The cleared areas shall be maintained free of vegetable growth during the progress of work.

Borrow areas shall be stripped of top soil or any unsuitable material. Stripping operations shall be limited to designated borrow areas.

12.07 **Earth Work in Embankment Including Spoil Banks: –**

The entire area of embankment shall be stripped to a sufficient depth to remove all unsuitable material such as (i) Debris (ii) Top soil (iii) Vegetable matter including roots (iv) Organic silt (v) Swamp material (vi) other perishable and objectionable material that are unsuitable for use in permanent construction or that might interfere with the foundation. The stripping shall be kept in advance of other items of works and material obtained from stripping shall be disposed off suitably as per directions of the Engineer-in-charge.

The embankment shall be constructed to the lines and grades as per drawings. The embankment if necessary shall be divided into zones within which fill materials having different characteristics are to be placed. Placement of fill within these zones as shown in the drawings or as directed by Engineer-in-charge shall be performed in an orderly sequence and in an efficient and work like manner, so as to produce within each zone, fills having such

qualities and density strength and permeability as will ensure the highest practicable degree of stability and performance of the whole embankment.

12.08 **Placement of Earth Fill:**

At many places the earth obtained from excavation may be more than that-required for making channel section as per drawings. Such surplus earth shall be placed in the spoil banks to be constructed on the both sides of the proposed canal. At some places earth obtained from excavation of channel section may be less than that required for making up the channel section. For such deficient section earth shall have to be brought from surplus sections where earth obtained from exaction is more than that required for construction of channel. The carriage of earth in such cases shall not be more than 100 M radius. However, if the contractor is required to dispose off the earth beyond 100 M radius, then additional payment shall be made according to then prevailing Schedule of Rate of the circle or the actual cost of disposal whichever is less.

The earth placed in the embankment shall be free from all clods and organic matter. The earth shall be placed in layers of not more than 15 cm. in thickness before being rolled. During construction a small transverse slope from centre towards edges should be given to avoid pool of water forming due to rains. If the rolled surface appears to be too dry, it should be moistened and if too wet, it should be raked up, allowed to dry to reduce the moisture content to the required extent and compacted again with additional number of passes before placement of next layer. When compacting the soil against abutment or walls of masonry or concrete structures, the construction surface of embankment shall be sloped away from the masonry or concrete structure, for a distance of 2.5 m to 3.5 m at an inclination of 6 : 1 or steeper. The portion of the embankment directly against the structure shall be compacted with pneumatic hand tampers in thin layers. The moisture content of the earth fill placed against the structure shall be slightly above the optimum. In extending any embankment, the benching shall be done by cutting steps on the slopes not steeper than 2 to 1 on the old embankment before laying fresh earth in the extension. No extra payment shall be made for this work. Care shall be taken in placing the first layer of the fill so that no damage is caused by the hauling machinery. Sheep foot rollers shall not be employed for compaction till the thickness of the layers compacted by other means is greater by 30 cm. than the depth of the foot of the roller drums.

12.09 **Compaction:**

Adequate labour and or appropriate arrangements shall be made by the contractor for spreading earth on the embankment in proper layers.

Light compaction of spoil banks shall be done by the contractor by manual labour by making the top surface even and regular. Inner and outer slopes shall be dressed manually, by wooden durmats. The dry density of the earth so compacted shall not be less than 85% of dry density at OMC. The earth placed in embankments which are a part of the canal section shall be compacted mechanically such that the dry density of compacted earth is not less that 95% of the dry density at OMC.

Leveling if necessary on account of any fault of the contractor may be resorted to by the department at his cost which the contractor shall have no objection nor any claims on that account shall be entertained.

12.10 **Inspection Road:**

The contractor shall construct and maintain inspection roads for movement of light vehicles in the entire reach of this contract. In case he failed to do so the Engineer-in-charge shall be at liberty to maintain the road by employing any other agency or by employing

departmental labour by giving 24 hours notice to the contractor and the expenditure so incurred shall be recovered from the contractor's bill. The decision of the Engineer-in-charge in this respect shall be final and binding upon the contractor.

12.11 **Maintenance of Earth During Progress of Work:**

During the execution of work the contractor shall be responsible for the maintenance of works completed by him. Any damage to the work already executed on account of rains, cross drainages and / or flow from adjoining reaches shall be made good by him. All rain washings shall be cleaned and the raincuts repaired by him. No extra payment shall be made to the contractor for these operations.

12.12 **Mode of Measurement and Payment:**

- (a) **Initial Cross Sections** : After clearance of land and removal of humus, cross sections shall be taken at 20 m or closer interval along the centre line of the canal or as decided by the engineer-in-charge. The levels along the cross sections shall be observed at every 5.0 m. or closer interval on both sides of the centre line and at obligatory points with reference to standard bench marks already established. The contractor or his authorized agent shall remain present during the course of leveling. The cross sections shall be entered direct in measurement book and signed by the contractor or his authorized agent in token of acceptance. The cross sections plotted in ink on graph paper and signed by the contractor shall be kept for safe custody in divisional office alongwith original contract documents. Whenever possible the cross sections shall be drawn in M.B. also.
- (b) The permission to start earth work shall only be given after the above formalities have been completed. It will be incumbent on the contractor to seek permission in writing to start the earth work.
- (c) **Final Cross Section** : In case of final measurements the levels shall be observed in presence of contractor or his authorized agent at points strictly where initial cross section were taken and the quantities of earth work shall be worked out by super-imposing the observed cross sections on the initial cross section already plotted. However if on some particular points extra quantity of earth work is found to have been executed beyond the cross sections shown in the drawings, such objectionable quantities may be excluded from measurements.
- (d) For taking cross sections strictly at the same points reference pillars shall be fixed by the contractor at his own cost. The contractor shall maintain them intact during the progress of his work. In case any damage is done to these pillars the contractor shall replace them promptly. No extra payment shall be made on this account.

12.13 **Payment:**

The work for final payment shall be measured only when the work is completed as per approved drawings.

Running payments will be made to the contractor for the earth work uniformly excavated at the following rates :-

- |       |   |  |
|-------|---|--|
| (i)   | For quantity executed upto 25% of total quantity of earthwork.      | Upto 40% (forty percent of tendered rate)        |
| (ii)  | For quantity executed upto 50% of total quantity of earthwork rate. | Upto 65% (sixty five percent of tendered rate)   |
| (iii) | For quantity executed upto 90% of total quantity of                 | Upto 75% (seventy five percent of tendered rate) |

earthwork.

- (iv) For quantity executed more than 90% of total quantity of earthwork. Upto 90% (ninety percent of tendered rate)

The 'total quantity of earthwork' means the quantity of earthwork in one km. reach of the canal where the earthwork is in progress. The engineer-in-charge reserves the right to make payment at lesser rates than those described in para 16.13 here-in-above.

In case part portions of the work is done or work is left incomplete or otherwise, suitable deductions shall be made in the rate of this item. The decision of the Executive Engineer shall be final and binding to the contractor in such matters.

12.14 **Rate:**

The rate for the item shall be quoted per cubic metre of earth work and shall include clearance of land, excavation of earth and its transportation from surplus to deficit zones or its placement in canal embankment / or spoil banks, compaction & dressing within 100 M radius. However, if the contractor is required to borrow / dispose off the earth beyond 100 M radius, then additional payment shall be made according to then prevailing Schedule of Rate of the circle or the actual cost whichever is less.

13.00 **WELL FOUNDATION :**

The work shall consist of construction of wells, taking them down to the indicated levels by open dredging of the soil and other materials, plugging the bottom and top and filling the inside in according with the details shown on the construction drawings or as approved by the Engineer-in-charge.

13.1 **FABRICATION AND LAYING WELL CURBS INCLUDING CUTTING EDGE :**

13.1.1 The dimension, shape and grade of cement concrete of the curb shall be strictly in conformity to construction drawing. Cutting edge fabricated from M.S. Angle iron, flat plate or any other structural conforming to I.S.I. specifications as per construction drawing shall be firmly fixed to the R.C.C. curb and steining by anchor bolts and band rods. All the joints in cutting edge shall be welded with 6 mm fillet welds. Welding shall conform to IS:816-1969 and IS:823-1964. The structural steel of cutting edge shall conform to IS:226-1975.

13.1.2 The moulds required for casting the curb shall be of steel or wood lined with G.I. sheets, 18 S.W.G. fixed to the frame properly. The specifications for form work, placing reinforcement and concreting shall be same as given in T.P. respectively. All concreting in the well curb shall be done in one continuous operation.

13.1.3 When the curb is to be laid in dry beds, the site shall be excavated upto 0.3m above the sub-soil water level before the cutting edge is placed. For wells which are to be pitched in water, an earthen/sand islands where possible shall be constructed and curb cast on this islands. In case of any deep or fast flowing water where an island may not be possible, the curb may be precast, floated and lowered in the final position with the help of necessary equipment. The well curb shall be placed truly in position and level.

13.1.4 The tendered rate shall include the cost of all materials required for the fabrication and erection of M.S. shoes of well curbs and M.S. cutting edge, carriage, handling, labour T and P and other incidental charges incurred for proper completion of the work. The payment shall be made under item No. 3 of Bill of Quantities.

The cement concrete, steel reinforcement and formwork shall be measured and paid for under relevant items provided in the Bill of Quantities i.e. 6 (iii), 4 and 5 (i) respectively.

## **13.2 WELL STEINING :**

- 13.2.1** The dimensions, grade of C.C. and shape of the well shall strictly conform to those shown on the construction drawings.
- 13.2.2** The steining of the well shall be built in one straight line from bottom to top, the work being checked carefully with the aid of straight edges of lengths approved by the Engineer-in-charge. Plumb bob or spirit level shall not be used.
- 13.2.3** Steining built in the first stage shall not be more than 2.0 meters and in subsequent stage it shall not exceed the diameter of the well or the depth of the well sunk below the adjoining bed level at a time. As far as possible, the stages of work shall not be kept at the location of the joints in the vertical steining bars.
- 13.2.4** After sinking of a stage is complete all damaged portions of steining at top of the previous stage properly repaired before constructing the next stage.
- 13.2.5** 100 mm  $\phi$  C.I. pipes shall be provided in the steining above top plug of well foundation under piers, which shall be paid separately under item no. 8 of Bill of Quantities.
- 13.2.6** The concrete shall be laid as described in T.P.No.8 and shall be measured and paid for under item No. 6(iv) of Bill of Quantities.

## **13.3 SINKING OF WELLS :**

- 13.3.1** The well shall as far as possible be sunk true and vertical through all types of soil by excavating material uniformly from inside the dredge hole. Simultaneous and even dredging shall be carried out in all the dredge holes. Sinking or loading of the well with Kent ledge shall be commenced only after the steining has been cured for at least 48 hours. The process of sinking includes pumping out and disposal of dredged materials on depression of river bed or at such other places as directed by Engineer-in-charge within a distance of one km. Dredged material, if considered suitable by the Engineer-in-charge, may also be used on afflux/guide bunds along the river. General dressing and manual compaction shall be done by the contractor at his own expenses. However, for fine dressing and mechanical compaction payment shall be made as an extra item.
- 13.3.2** During the operation of sinking wells, the strata pierced and the behaviour of well during sinking shall be constantly and regularly recorded and reported to the Engineer-in-charge. Towards the closing stage of sinking of a particular well, complete details shall be submitted to the Engineer-in-charge for orders sinking is to be continued or stopped.
- 13.3.3** Dewatering should be avoided in sinking. In no case differential water head be maintained in two dredge holes of the well.
- 13.3.4** Water jetting may be employed for well sinking wherever necessary. Explosives shall not be generally used as an aid for well sinking. However, in case where explosives are to be used, prior approval of the Engineer-in-charge shall be obtained. Blasting of any sort shall only be done in the presence of Engineer-in-charge or his authorized representative and not before the concrete/masonry in the steining has hardened sufficiently and is more than 7 days old. For wells going through boulder strata requiring use of explosives as an aid for well sinking, the entire inside surface of the well curb and steining up to a minimum height of 1.0m above the well curb, shall be protected by a 6mm thick mild steel plate which shall be suitably stiffened.

All prevalent laws concerning handling, storing and using of explosives shall be strictly followed. Contractor will arrange and maintain the explosives himself. The Employer will render necessary help to contractor in obtaining licence for the storage and handling of explosives from the prescribed authority.

**13.3.5** When the wells have to be sunk close to each other and distance between them is not greater than the diameter of wells, sinking shall be taken up on all the wells simultaneously and they shall be sunk alternately so that sinking of all wells proceeds uniformly and together. Precautions as given in Appendix 5 of IRC:78-1983 shall be observed. Wherever pier wells are located very near to the abutment wells having different bottom levels, the pier wells must be sunk first and after abutment wells have reached their final bottom level, no sinking below this level should be done in the adjacent pier wells.

**13.3.6** In case a well sinks suddenly and with a jerk, the steining of the well shall be examined to the satisfaction of the Engineer-in-charge to see that no damage has occurred to it.

**13.3.7** Tilt and shift of each well shall be measured regulatory during see entire sinking operation. Observations to this effect shall be taken at each stage of casting of the steining. Simultaneous./as the sinking proceeds, necessary corrective measure be taken to contain the tilts and shift within the permissible limits.

Unless otherwise in the construction drawings the tilt of any well shall not exceed 1 in 80 and the shift shall not be more than 1% of the outside diameter of the circular well or of the maximum outside dimension of the well for any other shape subject to a maximum of 150mm.

If the permissible limits of tilts and/or shifts specified above exceeded in any finally sunk well, the contractor shall suitably position the pier or Abutment to climate the effect of tilt and shift at his own cost after taking approval from the Engineer-in-charge. Even in such cases the permissible values of bearing pressures and maximum and minimum stress in steining will have to be satisfied at critical sections.

**13.3.8** Sinking of wells shall be paid from the low water level which for this purpose shall be taken at elevation 256.60M for wells under pier and 259.50M for wells under abutments of the aqueduct irrespective of any verification in the actual water levels from time to time as also the actual level at which the curb might be laid. The bottom of the curb for this purpose shall be the top of the lower angle iron.

**13.3.9** The tendered rate for well sinking shall include the cost of material, labour, T and P, its handling, cartage to site and other incidental expenses and taxes. It shall also include formation of island, dewatering, excavation and bailing out of material, providing and placing Kent ledge on top of well and removing the same, sand filling and contingencies warranting provision of temporary top plug in the event of floods being expected at site making further sinking not possible, and also other incidental works to sink the well to the required level. It shall also include blasting or use of divers for removal of obstacles from under the cutting edge of the well. It shall cover sinking through all kinds of strata including sand, silt, clay, kankar, shingle and boulder etc. No claim shall be entertained in respect of difficulties due to sand blowing met with during sinking of wells. Payment shall be made under item no. 2(a) or 2(b) as applicable of Bill of Quantities.

However, if Pneumatic sinking is restores to the contractor shall be paid extra at mutually agrees rates. The necessity for pneumatic sinking shall be decided by the Engineer-in-charge and such additional precautions shall be taker as decided by him.

**13.3.10** The shape, size, number and depth of well may have to be modified to suit the properties of the soil which, in the light of sub-soil data subsequently obtained, may vary as the work proceeds, The tendered rate may have to be modified proportionate to the increase or decrease in the sectional area. The contractor should also quote the rates for increase or decrease in sectional area of the well per square meter under item no. 11 of bill of Quantities.

**13.04 CEMENT CONCRETE IN BOTTOM PLUG, TOP PLUG AND WELL CAPS UNDER PIER AND ABUTMENT :**

**13.4.1** When the well is sunk to the required depth and approved by the Engineer-in-charge to be bottom plugged, the bottom shall be cleared of all the loose material and plugged with the cement concrete mix of the approved grade as shown on the construction drawings. Concrete for the plug shall be laid by TREMIE PIPE method or by skip boxes. Care shall be taken that any sump or depression formed by dredging below the level of the cutting edge, is filled thoroughly along with the plug. Least disturbance shall be caused to water inside the well while laying concrete in the bottom plug. Generally the work shall be done as per specification laid down in T.P.

Concreting shall be done in one continuous operation till dredge hole is filled upto the required height and thereafter sounding shall be taken as per clause B-1 of IS:3955-1967 to ensure that the concrete has been laid to the required height. Concrete as laid shall not be disturbed in any way for at least 14 days.

**13.4.2** Top plugging shall be done in cement concrete mix of approved grade as indicated on the construction drawings as also thickness and levels of the top plug. Plugging shall be done simultaneously and in equal heights in all the dredge holes.

**13.4.3** Cement concrete in well caps will be laid of mix and strength as indicated on the construction drawings or as decided by the Engineer-in-charge.

**13.4.4** Specifications for formwork and concrete work shall be followed as described subsequently in T.P.

**13.4.5** The item of work shall be measured and paid for under relevant items of bill of Quantities i.e. item no. 4 for steel reinforcement in well caps, item No. 5(ii) or 5 (iii) as applicable for form work and item no. 6(i), 6(ii) or 6(iii) as applicable for cement concrete work.

**13.5 LOCAL SAND FILLING IN WELLS :**

**13.5.1** A minimum of 3 days after the bottom plug has been laid shall elapse before the well is filled with sand. Sand to be filled shall be clean and free from earth, silt, clay, clods, roots, boulders, shingle etc. and shall be cohesion less. It shall be filled upto the level as shown in the construction drawing or as directed by the Engineer-in-charge.

**13.5.2** Sand available from dredging shall not be allowed to be filled in the wells. All the quantity of sand required for filling in wells shall be arranged by the contractor from River Ganga at Jwalapur

**13.5.3** The tendered rate shall include the cost of carriage and handling, placing it in position, T and P and all other incidental charges required for proper completion of work. The payment shall be made under item of bill of Quantities.

**14.00 ELASTOMETRIC BEARING**

Elastometric bearing has to be provided as per I.R.C. code for design load mentioned or as per instruction of Engineer-in-charge.

**15.0 M-100 BRICK WORK IN 1 : 4 CEMENT MORTAR**

**1501** **Brick** : M-100 Brick strictly conforming to I.D. specifications should be used. Yellow or sub-standard bricks shall not be allowed to be used.

**15.02** They shall be made from good brick earth, free from all traces of reh or other saline deposits.

**1503** They shall be of uniform deep cherry red or copper colour, thoroughly burnt, regular in shape with sharp and square corners and they must give a clear ringing sound on being struck.

- 15.4 They must be free from cracks, chips, flaws, stones of any kind and they must not absorb more than  $1 / 6^{\text{th}}$  of their own weight of water on soaking by immersion in water for 24 hours.
- 15.05 Samples of the bricks to be used shall be provided by the contractor at his own cost for approval of the Engineer-in-charge
- 15.06 **Soaking of Brick** : All bricks shall be soaked in clean water in tank for a period of at least 12 hours immediately before use.
- 15.07 Mortar shall be mixed by volume in proportion 1 : 4 of cement & sand as specified in clause 10.05 with F.M. not less than 1.2 by manual labour or mixer. Dry sand and cement shall be stacked on a pucca platform and required quantity of both shall be mixed dry properly. Afterwards it shall be mixed by adding clear water slowly and gradually to have workable consistency and mixing thoroughly by turning several time to obtain uniform colour.
- 15.08 **Laying** : All the best-shaped and most uniformly coloured bricks shall be picked out and used for face work. No mortar joint shall exceed 10 mm in thickness and the joints shall be filled with mortar fully. Bricks shall be laid with frogs upward except in the top course. Vertical joints in alternate course shall come directly over on other. Each brick shall be set with horizontal and vertical joints full of mortar. No damaged or broken bricks shall be used in any part of the work except such as are cut to size for closing a course. The face of brickwork shall be cleaned and subsequently kept cleaned of all mortar.
- 15.09 **Curing** : During construction brick work shall be protected from the effect of sun, frost and rain by provision of suitable covering. The brick work shall be kept wet for a period of at least 10 days after laying.
- 15.10 **Measurement and Payment** : Measurement of brick work shall be made of the actual masonry placed between the lines shown on the drawing or as directed by the Engineer-in-charge and shall be paid at the unit price provided in the schedule of bids.
- 15.11 **Rate** : Tendered rate shall include cost of all materials, labour, T&P, centering, shuttering, all taxes etc. and shall be for complete finished work in cubic meter.
- 15.12 **12.5 M.M. Thick Cement Plaster:**
- 15.13 **Mortar** : Cement mortar shall be prepared by mixing cement and sand as specified in clause 10.05 with F.M. not less 1.2 in specified proportion by volume. The water cement ratio by weight shall be maintained between 0.4 to 0.6 as may be specified from time to time by the Engineer-in-charge.
- 15.14 **Mixing** : The measured quantity of sand be levelled on clean platform and cement bags emptied on top. The cement and sand shall be thoroughly mixed dry by being turned over and over, backward and forward several times till the mixture is of a uniform colour. The quantity of dry mix which can be used with in 30 minutes shall then be mixed in masonry through with just sufficient of water to bring the mortar to the consistency of a stiff paste. Mortar shall be used as soon as possible after mixing and before it has begun to set.
- 15.15 **Application and Thickness** : The joints shall be raked out properly first and loose mortar shall be removed before applying the fresh mortar in two or three coats of equal thickness or as ordered by the Engineer-in-charge The thickness of the first coat of the plaster shall be exclusive of the thickness of key. The finished surface shall be smooth, lightly polished and even.
- 15.16 **Curing** : Curing shall be started as soon as the plaster has hardened sufficient as not be damaged when watered. The plaster shall be kept wet for at least 7 days. During this period it shall be suitably protected from all damages at the contractor's expense.

15.17 **Measurement** : Measurement of length and breadth shall be correct to a cm and its area shall be calculated in square meters correct to two places of decimal.

15.18 **Rate** : The rate shall include the cost of all labour and material involved in all operations described above.

#### **16.0 CEMENT CONCRETE IN BLOCKS IN APRON**

16.01 Cement concrete in blocks of grade A-80 M-15 and size as indicated in the drawing or as directed by the Engineer-in-charge with requisite gaps in between shall be laid. The concrete blocks shall be laid in apron on bed in such a way that mortar of the concrete in not leaked in the filter to prevent its chocking. The specification of materials and laying concrete shall be followed as given in clause-10.0.

The tendered rates shall be for all materials for concreting including, shuttering, concreting, vibration, curing, all labour, T and P and other charges required for proper completion of the work as per direction of the Engineer-in-charge

16.02 The cost of centering and shuttering for casting of C.C. block shall be deemed to be included in the tendered rate.

#### **16.03 Variation in Cement Consumption:**

The rate tendered by the contractor shall be based on the cement consumption for this item given in schedule 'C' per cubic metre of cement concrete for this item. If the Engineer-in-charge prescribes higher or lower cement consumption on the basis of mix design, the cost of the difference in cement consumption shall be added or deducted accordingly.

#### **16.04 Measurement and Payment:**

Measurement of concrete for this item for the purpose of payment will be made only to neat lines of the structure (Blocks) as indicated in drawings or as established by the Engineer-in-charge Any change in the proportion of the concrete mix except change in cement contents will not entitle the contractor to any adjustment in rates. The measurements and payment of this item shall be made against the item of cement concrete blocks in bill of quantities. The tendered rate of this item shall be of complete work including labour, materials, carriage, equipment and performing all works for manufacture and transport.

#### **17.0 POROUS CONCRETE IN 1 : 4 IN JHIRIS IN BETWEEN THE C.C. BLOCKS OF THE APRON**

17.01 The materials to be used in manufacture of porous concrete shall consist of cement and coarse aggregate mixed in specified proportions. The cement to be used shall be supplied by the department as described in schedule 'B'. The coarse aggregate shall be as per specification given in clause-10.00. The water shall be used as per specifications given clause-10.00.

17.02 The proportion of cement and coarse aggregate shall be 1 : 4 by volume. The minimum quantity of water will be used so that the mix shall appear just plastic. Mixing shall be done there is uniform distribution of material and mass is uniform in colour and consistency. Concrete shall be handled from the place of mixing to the place of final placement as rapidly as practicable but not later than 30 minutes by methods which will prevent segregation for loss of any of the ingredients. Placing of concrete would not be started until preparation of surface upon which concrete is to be laid have been completed.

#### **18.0 LAYING BOULDER IN APRON**

##### **18.01 Material:**

Boulder for laying in apron shall be sound, tough, durable, resistant, hard compact in texture, free from cracks and weathering or water effects. The quality of the boulder shall be subject to the approval of Engineer-in-charge Any rejected materials shall have to be removed

by the contractor from the work site at his own cost immediately after rejection. Boulders shall not be less than 150 mm in size in at least one direction, out of the remaining two, one should not be less than 225 mm and other should not be less than 150 mm. Variation in these dimension up to 10% can be tolerated, but not boulder weighting less than 20 kg. shall be allowed to be used.

18.02 The boulder shall be filled in apron of guide bund as per approved drawing.

18.03 The work shall be measured in cubical content and from thIs calculated quantity deduction for voids shall be made @ 10%.

18.04 The tendered rate shall be included cost of boulder, royalty, carriage up to site labour and T&P required for completion of work.

## **19.0 EARTH WORK FOR CANAL CONSTRUCTION**

### **19.01 General:**

The earth work shall be executed as per latest I.D. specifications and I.S.: 4701–1968 or its latest amendments.

### **19.02 Clearance of Land:**

Before starting excavation or placing earth for embankment or spoil banks, land shall be cleared off all trees, bushes, vegetation, rubbish roots etc. The material thus recovered shall be the property of Government and shall not be disposed off except as approved by the Engineer-in-charge. The land shall be maintained free from any growth and vegetation during progress of construction works.

The total width of cross section shall be scrapped to a depth of about 5 cm. to 8 cm. and shall also be cleared of all humus to the required depth and earth so obtained shall be removed from site by contractor for which nothing extra shall be paid to him.

### **19.03 Drawings:**

All work shall be carried out in accordance with the drawings to be supplied by the engineer-in-charge from time to time. These shall include index map, longitudinal section, cross sections of embankment and borrow reaches, planning of earth work for various slices.

The contractor shall layout the lines for excavation, marking width of channel at top, side slopes, central line and lines showing area of the banks by degbelling at his own expenses as per instructions of the Engineer-in-charge.

### **19.04 Profiles and Reference Pillars:**

Profiles to indicate the section to be excavated shall be constructed at regular intervals of 150 meters or closer or as ordered by the engineer-in-charge before any earth work is started. No extra payment shall be made for making such profiles.

Reference pillars shall be fixed by the contractor at his own cost at every 100 meter or closer or as directed by the engineer-in-charge at suitable places. The contractor shall maintain these intact during the progress of work and no extra payment shall be made on this account.

### **19.05 Earth Work in Excavation:**

Before commencement of excavation in any reach the contractor shall obtain in writing from the engineer-in-charge, instructions and schedule of quantities in regard to the disposal and utilization of the excavated material which might be in excess of the requirements for making banks in any reach.

The contractor shall excavate whatsoever substances may be encountered to the depth of excavation as shown on the cross section of the channel. Excavation to be carried out shall

conform strictly to the plans and levels shown on the profile of excavation in the cross sections. The bed of the channel will have definite gradient, longitudinally as indicated in the L-section and will be kept level transversely unless otherwise specified. The side slopes of excavation will be excavated to the gradient prescribed in the drawing and shall be neatly finished.

All the roots or other protruding material shall be removed from bed of the channel by the contractor at his own expenses.

Excavation below the prescribed level will not be paid for excess excavation below required bed level or on side slopes shall be back filled at contractor's cost, with selected material and thoroughly compacted as per direction of Engineer-in-charge.

If during excavation, soil mixed with kankar or bajri etc. is encountered, it shall also be excavated by the contractor without any extra payment except that where block kankar of more than 10 mm dimension or pure shingle is excavated. It shall be cleared and stacked outside the toe of bank at the site to be indicated by the Engineer-in-charge. This shall be entered separately in measurement book. The material thus collected shall be paid extra at the rate as per sanctioned schedule of rates of the District deducting 15% for voids.

19.06 **Borrow Areas:**

Borrow area (if required) shall be specified by the Engineer-in-charge.

All areas required for borrowing earth for embankment shall be cleared of all trees and stumps, roots, bushes, rubbish and other objectionable material-particular care shall be taken to exclude all organic matter from the material to be placed in embankment. The cleared areas shall be maintained free of vegetable growth during the progress of work.

Borrow areas shall be stripped of top soil or any unsuitable material. Stripping operations shall be limited to designated borrow areas.

19.07 **Earth Work in Embankment Including Spoil Banks: –**

The entire area of embankment shall be stripped to a sufficient depth to remove all unsuitable material such as (i) Debris (ii) Top soil (iii) Vegetable matter including roots (iv) Organic silt (v) Swamp material (vi) other perishable and objectionable material that are unsuitable for use in permanent construction or that might interfere with the foundation. The stripping shall be kept in advance of other items of works and material obtained from stripping shall be disposed off suitably as per directions of the Engineer-in-charge.

The embankment shall be constructed to the lines and grades as per drawings. The embankment if necessary shall be divided into zones within which fill materials having different characteristics are to be placed. Placement of fill within these zones as shown in the drawings or as directed by Engineer-in-charge shall be performed in an orderly sequence and in an efficient and work like manner, so as to produce within each zone, fills having such qualities and density strength and permeability as will ensure the highest practicable degree of stability and performance of the whole embankment.

19.08 **Placement of Earth Fill:**

At many places the earth obtained from excavation may be more than that-required for making channel section as per drawings. Such surplus earth shall be placed in the spoil banks to be constructed on the both sides of the proposed canal. At some places earth obtained from excavation of channel section may be less than that required for making up the channel section. For such deficient section earth shall have to be brought from surplus sections where earth obtained from exaction is more than that required for construction of channel. The carriage of earth in such cases shall not be more than 100 M radius. However, if the contractor is required

to dispose off the earth beyond 100 M radius, then additional payment shall be made according to then prevailing Schedule of Rate of the circle or the actual cost of disposal whichever is less.

The earth placed in the embankment shall be free from all clods and organic matter. The earth shall be placed in layers of not more than 15 cm. in thickness before being rolled. During construction a small transverse slope from centre towards edges should be given to avoid pool of water forming due to rains. If the rolled surface appears to be too dry, it should be moistened and if too wet, it should be raked up, allowed to dry to reduce the moisture content to the required extent and compacted again with additional number of passes before placement of next layer. When compacting the soil against abutment or walls of masonry or concrete structures, the construction surface of embankment shall be sloped away from the masonry or concrete structure, for a distance of 2.5 m to 3.5 m at an inclination of 6 : 1 or steeper. The portion of the embankment directly against the structure shall be compacted with pneumatic hand tampers in thin layers. The moisture content of the earth fill placed against the structure shall be slightly above the optimum. In extending any embankment, the benching shall be done by cutting steps on the slopes not steeper than 2 to 1 on the old embankment before laying fresh earth in the extension. No extra payment shall be made for this work. Care shall be taken in placing the first layer of the fill so that no damage is caused by the hauling machinery. Sheep foot rollers shall not be employed for compaction till the thickness of the layers compacted by other means is greater by 30 cm. than the depth of the foot of the roller drums.

19.09 **Compaction:**

Adequate labour and or appropriate arrangements shall be made by the contractor for spreading earth on the embankment in proper layers.

Light compaction of spoil banks shall be done by the contractor by manual labour by making the top surface even and regular. Inner and outer slopes shall be dressed manually, by wooden durmats. The dry density of the earth so compacted shall not be less than 85% of dry density at OMC. The earth placed in embankments which are a part of the canal section shall be compacted mechanically such that the dry density of compacted earth is not less that 95% of the dry density at OMC.

Leveling if necessary on account of any fault of the contractor may be resorted to by the department at his cost which the contractor shall have no objection nor any claims on that account shall be entertained.

19.10 **Inspection Road:**

The contractor shall construct and maintain inspection roads for movement of light vehicles in the entire reach of this contract. In case he failed to do so the Engineer-in-charge shall be at liberty to maintain the road by employing any other agency or by employing departmental labour by giving 24 hours notice to the contractor and the expenditure so incurred shall be recovered from the contractor's bill. The decision of the Engineer-in-charge in this respect shall be final and binding upon the contractor.

19.11 **Maintenance of Earth During Progress of Work:**

During the execution of work the contractor shall be responsible for the maintenance of works completed by him. Any damage to the work already executed on account of rains, cross drainages and / or flow from adjoining reaches shall be made good by him. All rain washings shall be cleaned and the raincuts repaired by him. No extra payment shall be made to the contractor for these operations.

19.12 **Mode of Measurement and Payment:**

- (a) **Initial Cross Sections** : After clearance of land and removal of humus, cross sections shall be taken at 20 m or closer interval along the centre line of the canal or as decided by the engineer-in-charge. The levels along the cross sections shall be observed at every 5.0 m. or closer interval on both sides of the centre line and at obligatory points with reference to standard bench marks already established. The contractor or his authorized agent shall remain present during the course of leveling. The cross sections shall be entered direct in measurement book and signed by the contractor or his authorized agent in token of acceptance. The cross sections plotted in ink on graph paper and signed by the contractor shall be kept for safe custody in divisional office alongwith original contract documents. Whenever possible the cross sections shall be drawn in M.B. also.
- (b) The permission to start earth work shall only be given after the above formalities have been completed. It will be incumbent on the contractor to seek permission in writing to start the earth work.
- (c) **Final Cross Section** : In case of final measurements the levels shall be observed in presence of contractor or his authorized agent at points strictly where initial cross section were taken and the quantities of earth work shall be worked out by super-imposing the observed cross sections on the initial cross section already plotted. However if on some particular points extra quantity of earth work is found to have been executed beyond the cross sections shown in the drawings, such objectionable quantities may be excluded from measurements.
- (d) For taking cross sections strictly at the same points reference pillars shall be fixed by the contractor at his own cost. The contractor shall maintain them intact during the progress of his work. In case any damage is done to these pillars the contractor shall replace them promptly. No extra payment shall be made on this account.

19.13 **Payment:**

The work for final payment shall be measured only when the work is completed as per approved drawings.

Running payments will be made to the contractor for the earth work uniformly excavated at the following rates :-

- |       |   |  |
|-------|---|--|
| (i)   | For quantity executed upto 25% of total quantity of earthwork.      | Upto 40% (forty percent of tendered rate)        |
| (ii)  | For quantity executed upto 50% of total quantity of earthwork rate. | Upto 65% (sixty five percent of tendered rate)   |
| (iii) | For quantity executed upto 90% of total quantity of earthwork.      | Upto 75% (seventy five percent of tendered rate) |
| (iv)  | For quantity executed more than 90% of total quantity of earthwork. | Upto 90% (ninety percent of tendered rate)       |

The 'total quantity of earthwork' means the quantity of earthwork in one km. reach of the canal where the earthwork is in progress. The engineer-in-charge reserves the right to make payment at lesser rates than those described in para 16.13 here-in-above.

In case part portions of the work is done or work is left incomplete or otherwise, suitable deductions shall be made in the rate of this item. The decision of the Executive Engineer shall be final and binding to the contractor in such matters.

19.14 **Rate:**

The rate for the item shall be quoted per cubic metre of earth work and shall include clearance of land, excavation of earth and its transportation from surplus to deficit zones or its placement in canal embankment / or spoil banks, compaction & dressing within 100 M radius. However, if the contractor is required to borrow / dispose off the earth beyond 100 M radius, then additional payment shall be made according to then prevailing Schedule of Rate of the circle or the actual cost whichever is less.

20.0 **LINING IN BED AND SIDES OF CHANNEL**

20.01 **Preparation of Sub grade Consisting of Earth:**

The sub grade shall be prepared, dressed and rolled true to level and according to the required cross section of the canal to form a firm compacted bed for the lining.

In other than predominantly sandy reaches where the dry bulk density of the natural soil is not less than 1.8 gm/cm<sup>3</sup>, initial excavation shall be done up to about 50 cm above the final section and the cutting to final section shall be done immediately before lining. Sample profiles true to the cross section of the canal shall be made at an interval of 10 to 15 M. or as directed by Engineer-in-charge to ensure correct formation of sub grade by providing insitu concrete sleepers required for construction joints. Suitable wooden templates may be used to layout and check the profile.

If at any point material of prepared sub grade has been excavated beyond the neat lines required to receive lining the excess excavation shall be filled with graded filter material compatible with sub grade material and thoroughly compacted.

To cover up any lapses in the compaction of the inner core of the banks near the edges and to allow sufficient width for a labourer to work conveniently a lip cutting width of not less than 50 cm perpendicular to the slope shall be provided. Depending upon the nature of soil and the side slopes of the canal, the lip cutting width may be in the range of 50 to 100 cm.

20.02 **Compaction of Sub grade:**

**Bed** : All compaction shall be done at optimum moisture content in layers not more than 15.0 cm thick obtain a dry bulk density of not less than 95 percent of the density at optimum moisture content obtained in accordance with I.S. 2720 (Part-VII) 1965 or its latest revision.

Where the dry bulk density of the natural soil is less than 1.8 gm/cm<sup>3</sup> and the subsoil water is near or above the sub grade, the consolidation shall be done after dewatering by under cutting the bed by 7.5 cm and then ploughing upto 15.0 cm below the sub grade level. The loosened soil shall then be recompactd with sheep foot rollers or other suitable devices.

**Sides** : Consolidation on sides shall be done by manual labour or suitable compactors to obtain a minimum dry bulk density of not less than 95 percent of the density at optimum moisture content obtained in accordance with I.S. 2720 (Part-VII) 1965 or its latest revision.

20.03 **Laying and Fixing of LDPE Film:**

20.03.01 **LDPE Film:**

L.D.P.E. film shall be of 200 micron (1000 gauge) of about 0.233 kg. per square metre by weight will be used underneath the concrete lining.

20.03.02 **Laying and Fixing of LDPE Film:**

- (a) Low density poly-ethylene film shall be placed directly on the prepared profile / sub grade or filter laid. The sub grade shall be well compacted and reasonably free from undulations. All sharp objects such as stones, pebbles, roots and weeds should be cleared to prevent puncturing of the film.
- (b) LDPE film shall be laid on prepared sub-grade in the transverse direction and shall be tied in the concrete as directed by Engineer-in-charge.
- (c) Adjacent length of the film will be laid over the bed or sides shall be over-lapped by around 20 cm in the direction of water flow. The film shall be spread loosely (with 5% allowance in both the directions) on the sub grade.
- (d) Workers should not tread on the film and they should walk on the half filled sand bags placed over the film.
- (e) Flapping of the film should be prevented by weighing it down with sand bags and never with materials like brick etc.

20.03.03 **Rates:**

The rates of the item shall be quoted per metre square and shall include the cost of LDPE film, its safe carriage to site of work, laying and fixing for proper completion of work as per specifications.

20.04 **Tar Paper:**

20.04.01 The tar paper shall be arranged by the contractor. The contractor shall make his own arrangement for safe carriage of Tar paper to the site. The tar paper shall be fixed in position as per drawing or as directed by the Engineer-in-charge.

20.04.02 **Rate:**

The rates of this item shall be quoted per square metre and shall include the cost of Tar paper, its carriage to site of work, laying and fixing.

20.05 **Filter:**

20.05.01 The graded filter under lining for seepage drains shall be provided in layers as shown in the drawing as directed by the Engineer-in-charge. The gradation of different filter materials, to be used is shown in the drawing.

20.05.02 Before starting laying of graded filter sub grade shall be levelled and dressed. The filter material shall be cleaned thoroughly if necessary to remove any earth, clay and other organic impurities. The gravel shall be composed of good hard tough, stone of the sizes as indicated in drawing or as directed by the Engineer-in-charge. The sand and shingle shall be well graded & the materials shall be got approved by the Engineer-in-charge.

The filter material shall be laid in layers of thickness as shown in the drawing or as directed by the Engineer-in-charge. Each layer shall be well packed, before subsequent layers are laid and special care shall be taken by the contractor to ensure that there is no mixing of any of the layers of filter materials. Care shall also be taken by the contractor after laying of filter to suitably protect the entry of undesirable material by covering with polythene sheets or gunny bags till concrete or lining is laid.

20.05.03 **Rate:**

The rates for this item shall be per cubic metre including cost of all material and its carriage to site of work, laying, grading, packing and compacting and with all operations of providing graded filter as per drawing and specification.



	concrete lining	less than that specified.	
(d)	Aggregate fineness modulus	Minimum	Maximum
	Fine aggregate	2.0	3.5
	Coarse aggregate		
	40 mm	6.9	7.5
	30 mm	6.6	7.2
	25 mm	6.4	7.0
	20 mm	6.2	6.9
	15 mm	6.1	6.9
	10 mm	6.0	6.8

20.08.02 **Finishing:**

Finishing of concrete surface which are prominently exposed to view shall be performed only by skilled workmen according to the direction of the Engineer-in-charge. The finish shall have uniform and even surface and colour.

20.08.03 **Replacement of Rejected Concrete:**

Concrete which is not placed and compacted in accordance with these specifications and is, in the opinion of the Engineer-in-charge of inferior quality shall be removed and replaced by the contractor. The entire cost of removing and replacing such rejected concrete shall be done by the contractor including cost of materials required in the replacement.

20.08.04 **Curing:**

Subsequent to laying of concrete lining and after a period of 12 hours, the lining should be cured for at least 28 days.

20.08.05 **Bed Lining:**

Twelve hours after laying of concrete small bunds longitudinal and cross-wise consisting of earth materials or lean mortar (1 : 15) should be laid for a height of 8 cm. for the purpose of curing. Water will be kept always ponded in these bunds for 28 days continuously.

20.08.06 **Side Lining:**

The panel in which concreting is done previous day should be covered with empty cement bags. The curing of side slopes will be done by the contractor as directed by engineer-in-charge at the contractor's expenses. All water used in curing shall be free from excessive amount of silt, colouring material and other impurities which may stain the finished work.

20.08.07 **Strength of Concrete:**

Some cement concrete cubes or cylinders in the standard mould will be cast as per standard procedure for testing of the strength of the concrete, done for the day. These cubes will be cast for the mix at the time of delivery from mixer and will be cured properly in a tank of adequate capacity without any injury to them. All labour, T&P and tank etc. will be provided by the contractor at his own coat. One third cubes will be tested after 7 days and balance cubes after 28 days. The cubes will be marked properly for identification. The average strength of all concrete shall not be less than 95% (Ninety five percent) of the specified strength. If the average strength of particular mix is less than the specified strength, the concrete of that particular mix may either be rejected and got replaced or may be accepted at the discretion of the Engineer-in-charge but payment shall be made at reduced rates in proportion of actual strength.

20.08.08 **Construction Joints in Concrete Lining:**

Construction joints at suitable spacing shall be provided in concrete lining as shown in the drawing or as specified by the Engineer-in-charge. These joints shall later on be filled with a suitable joint filler which shall be provided to the contractor free of cost by the department from the departmental stores listed in schedule 'B'. Below these joints cast in Situ M-10 concrete sleepers shall be laid.

Before laying cement concrete for lining, the top of the sleepers both in bed and side slopes be treated with two layers of bitumen to reduce the leakage across the joints. Slabs shall be laid in alternate compartments with an interval of at least one day for setting and contraction. The faces of the previously placed concrete shall be painted with bitumen so as to ensure that no bonding takes place. The grooves at the joint shall be filled with hot applied joint filler. Filling of joint with hot applied joint filler should be taken up after curing period is over. In the meantime, joints are liable to be filled with earth, which will be difficult to clean. It is, therefore, advisable to fill these joints with coarse sand during the curing period. The sand can be easily blown out from the joints when required. The grooves should be clean and free from foreign substances when the joint filler is applied. The grooves shall be filled as soon as the concrete has become sufficiently stiff to prevent appreciable distortion of groove shape. Nothing extra shall be paid to the contractor for this.

20.08.09 **Measurements:**

Measurements of concrete for payment will be made only to the neat lines of the structure as indicated on the drawings or as established by Engineer-in-charge in square metres.

20.08.10 **Rates:**

Rate quoted by the contractor shall include the cost of all material, labour, T&P completion of work as per specification.

20.09 **Porous Concrete Window:**

20.09.01 Porous concrete (1 : 4) window will be provided in bed and slope.

20.09.02 The materials to be used in manufacture of porous concrete shall consist of cement and coarse aggregate mixed in specified proportions. The cement to be used shall be supplied by the department as described in Schedule 'B'. The coarse aggregates shall be as per specifications given in clause-10.0. The water shall be used as per specifications given in clause-10.0.

20.09.03 The proportions of cement and coarse aggregate shall be 1 : 4 by volume. The minimum quantity of water will be used so that the mix shall appear just plastic. Mixing shall be done until there is uniform distribution of material and the mass is uniform in colour and consistency. Concrete shall be handled from the place of mixing to the place of final placement as rapidly as practicable but not later than 30 minutes by methods which will prevent segregation for loss of any of the ingredients. Placing of concrete would not be started until preparation of surface upon which concrete is to laid have been completed.

20.09.04 Tar Paper shall be provided below porous concrete. Tar paper should be of good quality and approved by the Engineer-in-charge. The damage or punctured tar paper shall not be used and shall not be payable. It shall be replaced by the contractor at his own cost.

20.09.05 The rate for this item shall include cost of all material, labour and T&P required for proper completion of the work as described here in before for a specified size of porous concrete window. The rate for this item shall be quoted per No. for particular size.

20.10 **Safety Ladders:**

20.10.01 Safety ladders shall be constructed in canal lining where shown on the drawing or as directed by Engineer-in-charge.

Safety ladders consisting of rungs shall be constructed in channel lining about 30 metre U / S of the the point where the channel enters some underground structure. In other reaches safety ladders shall be provided at a spacing of about 500 metre. (provided alternately on either side) or as per direction of Engineer-in-charge.

20.10.02 All mild steel bars of 25 mm to be used as rungs shall be made free oil, grease, dust, mortar or any other defect or bends other than those required by the Engineer-in-charge according to the drawing. All the bars shall be bent cold to the shapes and dimensions as directed by the Engineer-in-charge. Heating of bars for bending shall not be allowed. The radius of all bends shall not be less than 4 times the diameter of the bar or as directed by Engineer-in-charge.

20.10.03 Ladder rungs shall be smooth round mild steel bars painted with paint after installation.

20.10.04 **Material:**

The cement and steel required for the work shall be issued to the contractor from departmental store at the rates mentioned in schedule B. The contractor shall be responsible for the safe carriage of material from department store to site of work and safe custody at site of work.

20.10.05 **Rates:**

The rates of the safety ladders shall be quoted by the contractor per running metre. The rates shall include cost of all material, labour and T&P required for completion of work.

20.11 **Inspection Ladders:**

20.11.01 Inspection ladders 500 mm wide shall be provided at every 100 metres or at any other intermediate point where the work is in progress on both the banks of the channel from berm to the bed of the channel along the slope.

20.11.02 These shall consist of steps made in wooden planks with 300 mm on rise and 450 mm tread along the side slopes of the channel or any other design approved by the Engineer-in-charge. These temporary inspection ladders shall be of portable type and may be shifted from one place to another as and when required. Nothing shall be paid to the contractor for providing inspection ladders. The inspection ladders shall be removed by the contractor at the time of finishing the lining work.

20.12 **Laying & Fixing A.C. / P.V.C. / HDPE Perforated Pipe:**

20.12.01 The Pipes shall have circular holes of 12 mm diameter. A length of 70 mm at either end of the pipe shall be left as it shall be covered by collars. Holes shall be in 8 rows (Parallel to the axis of the pipe) equally spaced along the circumference of the pipe. There shall be 22 holes in each row per 1.50 metre length of the pipe and holes of one row shall be staggered with respect to the holes of adjoining row. Thus in 1.5 M length of pipe, there shall be a total of 176 number holes. The collars & tees (single & double) shall be of the same material as that of pipes.

20.12.02 **Laying A.C. / P.V.C. / HDPE Pipes:**

The pipes shall be laid in position as per drawing or as directed by the Engineer-in-charge. The pipes shall be laid true to the bed slope of the Canal.

20.12.03 **Rate:**

The rate of this item shall be quoted per running meter. The rates shall include cost of pipes collars, tees and labour required in laying and joining pipes and other specials required to complete the work as per specification.

## **21.0 DEWATERING**

- 21.01 Ground water shall be encountered when excavation is carried below sub soil water level.
- 21.02 The item shall include type of system such as well point, shallow well or sump, deep well system or vacuum well point system, installation and operation, maintenance of drain, flumes pipe line etc. All other auxiliary works shall also be included in this item of work.
- 21.03 The item of dewatering shall include the disposal of water drawn from dewatering operation into river or, drains or depressions etc. sufficiently away from working site through a system of pipes or temporary drains as directed by the Engineer-in-charge
- 21.04 The item of dewatering shall also include control of seepage pressures under the sub-structure which is in the process of construction and adequate pumping is to continue till the structure develops requisite dimensions as well as strength to withstand seepage pressure.
- 21.05 The dewatering plant, will be kept in operation till technically required or as directed by the Engineer-in-charge of work after completion of concreting.
- 21.06 All the dewatering operation as mentioned in aforesaid para shall be started after taking written permission from the Engineer-in-charge.
- 21.07 The contractor shall prepare and submit to the Engineer-in-charge detailed scheme for dewatering indicating the number including stand by, type and capacity of pumping sets along with well points, location of their installation, mode of disposal of pumped water and other details necessary for giving complete item of the operation proposed to be employed. The scheme shall be implemented only after obtaining approval of the Engineer-in-charge of the work. Any change, modification and additions suggested by the Engineer-in-charge of the work shall be implemented by the contractor for which contractor will not be entitled to any claim.
- 21.08 The contractor shall have his own arrangement of power supply or diesel generators, diesel engines and diesel pumping sets required for dewatering.
- 21.09 The rate of this item shall be tendered per kilowatt hour. The contractor shall at his own cost, install meter at suitable location approved by Engineer-in-charge of the work. The meter installed as above shall be sealed by the Engineer-in-charge and it would be the responsibility of the contractor to protect and guard the meter against damage and tempering. The meter should be tested periodically to ensure correct recording.
- 21.10 In case diesel pumping sets are used, the unit of KW.H. for payment shall be taken equivalent to 0.746 of B.H.P. of the pumps used.
- 21.11 For running the diesel pumping sets and / or generating sets, the contractor shall himself arrange for all P.O.L. at his own cost. He shall maintain proper log-books and in such details as the Engineer-in-charge may require, of running of diesel pumping sets employed for the dewatering and all entries will be made for each shift of working and the same shall be got verified periodically.

## **22.00 Technical Provision of Pressure Release Valves**

Technical Specifications for Designing, Making and Supplying 110 mm dia PVC Pressure Release Valves Type A,B,C for releasing the pore water pressure from the bed, side and longitudinal drain of the CC Lining

### **22.01 Common Parameters:**

- (1) The contractor will design the pressure release valve and will submit the sample at the time of pre bid with the offer .The design of the pressure release valves should be as per the ID specifications and IS Code 4558-1983 revised in 1993 and as per requirement of the proposed work .After the approval of the sample, then only the price bid of the bidder will be opened. At

the time of agreement the contractor will submit three set of drawings of each valve for the approval and he will start the work as per the approved design.

- (2) The material of each PVC part of the pressure release valve should be non-recycled and should match to the specifications of 4.0 kg/sq.cm. Working pressure and as per IS specifications. The hole in the 110/75mm dia PVC pipe will be of 10 mm dia meter will be 20 mm C/C staggered.
- (3) The rates of the pressure release valves will be of a complete eight rows piece of pressure release valve i/c cost of all material ,taxes as applicable ( Central and State ) , labour, T&P, transport , loading and unloading e.t.c. for the proper completion of the work. F.o.r. Bijnor Government store at Madhya Ganga Canal Colony.

## 22.02 The Rubber Flap and Weight :

The flap will be of neoprene rubber of good quality .It shall be 3 mm thick and should have Shore A Durometer hardness between 60-70 and specific density not less than 1.2 .The rubber flap should be homogeneous, free from cracks and other such defects .It should be uniform in colour ,density and physical and chemical properties . It should be perfectly smooth on both faces and will be rigidly tightened with the main plate by means of two 6 mm aluminum rivets. The rubber flap at the narrow end will be tightly pressed with main plate by 5 mm thick aluminum strip over which the aluminum rivets will be fixed. On the top face of the flap, 5 mm thick, 75 mm dia anti corrosive stainless steel of category 304 will be centrally and rigidly fastened by means of 6 mm aluminum bolt and 3 mm thick nut with washer on bottom face. The weight of the discs together will be between approximately 230-240 gms. The maximum allowable loss of weight in the rubber material be 0.4% after 50 cycles of wetting and drying. Flap in P.R.V. should be positioned to work freely flowlessly.

## 22.05 Test & Function of P.R.V.

- 1 The contractor has to submit the test certificate for the neoprene rubber sheet and the stainless steel used in the valve.
- 2 The department will regularly inspect the workshop where the assembly is going on for ensuring the dimensions, quality and design as per the approved design.
- 3 The Engineer will select Pressure Release Valves randomly 2 nos from each consignment of 500 numbers supplied by the contractor and will check them form hydraulic criteria and material criteria. If at any point of time during checking, it was found that the material is not as per the Codes/Specifications or it does not sustain the hydraulic requirements , the Pressure Release Valve will be rejected and the contractor will have to rectify the material /replace of Pressure Release Valve, and he will be bear all such cost. After failure of the one sampling process, then another sampling with two number samples will be collected from the lot randomly, from the 500 nos and the same process will be repeated for testing. If in the second checking process, the sample also fails, then the whole lot will be rejected. The payment can only be made after the successful result of the testing.
- 4 The functions of P.R.V. shall start quickly before rising the hydrolic head by and 50 mm.
- 5 The discharge capacity of 1600cc/sec at defferential water head-----m
- 6 The leakage should not be more than 25cc/sec at the head of 14.00m water.

## CONDITIONS OF CONTRACT

Further deposit

Clause 1– The persons whose tender is accepted (herein after called the contractor) shall within one week after his or their tender has been accepted, deposit with the Government of Uttar Pradesh (here in after called the Government) either in cash or in securities as provided in paragraph 614 of the Financial Hand book, Volume VI such sum as will with the earnest money deposited with the tender amount to Rupees ..... and where any securities so deposited is not payable to bearer, the contractor shall endorse or transfer it to the said Government in such a manner that the sum represented by it can be realised without the consent or assistance of the contractor. Apart from the earnest money deposited with the tender, the contractor shall also deposit balance security amount @ 8% of the cost of work at the time of agreement in cash or in the form of Government Securities or Fixed Deposit receipts or Guarantee Bonds of any Nationalised Bank in India.

Deduction from  
payment

Security Deposit

If the security is furnished in the form of guarantee bonds the contractor undertakes to renew or to furnish fresh guarantee to cover the period of time extension, if any, and failure on his part to do so shall be construed as a breach of this contract and without prejudice to any other remedy provided in these conditions the Engineer-in-Charge shall have right to withheld the payment and deduct the entire security amount from moneys becoming payable to the contractor. The amount of security money shall, if not withheld on the account of breach of contract be refunded after six months of the date of completion of the work or after payment of the final bill, which ever is later, subject to the condition that in case of the building work of the first rainy season comprising of months of June, July, August & September is not fully covered within the period of six months mentioned above, the amount of security money, if not withheld on account of breach of contract, be refunded after the expiry of the first rainy season comprising of the months mentioned above or after the payment of the final bill which ever is later.

Provided that in case the payment of the final bill is not made within six months of the completion of the work, 75% of the amount of the security money can be refunded with the prior approval of the authority next higher to the person accepting the contract on behalf of the Government.

All compensation or other sums of money payable by the contractor to Government under the terms of this contract may be deducted from or realised by the sale of a sufficient part of his security deposit, or from the interest arising there-from or from any sums which

may be due or may become due to the contractor by the Government 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 10 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.

**EXPLANATION**— For the purpose of this clause if the work under this contract includes construction, reconstruction or repair of any structure having roof over it, the whole work will be classed as building work.

Clause 2-A— Time is the essence of the contract. The contractor shall commence and shall complete the work covered by the tender on the dates fixed by the Executive Engineer for the commencement and completion of such work and shall in the interval between those dates keep the work up so the schedule of quantities and dates shown in the Progress Statement to be signed by the contractor and attached to the tender the contractor and attached to the tender. If the work falls in arrears of the Progress Statement either in quantity or in time, then for every day that the work is so in arrears the contractor shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Engineer (whose decision in writing shall be final) may decide, on the estimated cost of the whole work : Provided always that the entire amount of compensation to be paid under the provisions of this clause shall not exceed ten percent of the estimated cost of the work as shown in the tender.

(Clause 2-B— To be used instead of 2-A when the latter is from the nature of the work impracticable).

Compensation for delay.

Clause 2-B— Time is the essence of the contract. The contractor shall complete the work within the period specified in the tender. Such period shall be reckoned from the date on which the order to commence work is given, to the contractor. The Contractor shall at all times during such period proceed with the work with due diligence and he shall pay as compensation an amount equal to one percent or such smaller amount as the Engineer (whose decision in writing shall be final) may decide on the amount of the estimated cost of the whole work as shown in the tender for every day that the work remains uncommenced, or unfinished after the proper dates. And further, in order to ensure good progress during the execution of the work the contractor shall be bound in all cases in which the time allowed of any work exceeds one month to complete one-fourth of the value or quantity (as the Superintending Engineer may determine) of the whole of the work before one-fourth of the whole-time allowed under the contract elapsed; one-half of the value or quantity (as the

Action by which  
whole of security  
deposit is forfeited.

Superintending Engineer may determine) of the work before one-half of such time has elapsed; and three-fourths of the value or quantity (as the Superintending Engineer may determine) of this work before three fourths of such time has elapsed. If the contractor fails to comply with this condition he shall be liable to pay as compensation an amount equal to one percent of such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide on the said estimated cost of the whole work for every day that the quantity of work remains incomplete. Provided always that the entire amount of compensation to be paid under the provision of this clause shall not exceed ten percent on the estimated cost of work as shown in the tender.

Clause 3—(i) In any case in which under any clause or clauses of his contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of the security deposit (whether paid in one sum or deducted by installments) the Superintending Engineer shall have power to adopt such of the following courses as he may deem best:

(a) He may rescind the contract by giving the contractor notice of rescission signed by the Superintending Engineer and may then take the whole of the contractor's security deposit for the use of Government as compensation for the loss caused by the contractor's default.

(b) He may, after giving the contractor ..... days notice in writing of his intention to do so, measure up the work done by the contractor and then employ and pay labourers and supply or procure materials and carry out all or any part of the work himself on behalf of Government debiting the contractor with the actual cost and crediting him at the contract rates with the value of the work so done, and may postpone till completion of the work so taken over assessment of the compensation to be paid by the contractor. If any work is so taken over by the Superintending Engineer the certificate in writing of the Superintending Engineer as to its cost and value shall be final and conclusive against the contractor.

(c) He may, after giving the contractor ..... days notice in writing of his intention to do so, measure up the work done by the contractor, take the work out of his hands and give a contract for its completion to another contractor and may postpone till the completion of the work the assessment of the compensation to be paid by the original contractor. If the Superintending Engineer elects to give the completion of the work to another contractor, the original contractor shall pay expenses which may be incurred in excess of the sum which would have been paid to him if the whole work had been carried out by him, and a certificate in writing of the Superintending Engineer or of the ..... shall be final & conclusive as against the contractor

as to the amount of any such expenses.

(ii) If the Superintending Engineer does not desire to do so the work, the contractor shall not be entitled 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 advances on account of or with a view to the execution of the work or the performance of the contract; and shall not be entitled to recover or be paid or be given credit for any sum for any work therefore actually performed by him under this contract, unless and until the Superintending Engineer or ..... acting under his order shall have certified in writing the performance of such work and the value thereof the contractor shall only be entitled to be paid the value as so certified.

(iii) If upon any occasion the Superintending Engineer abstains from exercising the powers given to him by this clause, such abstention shall not prevent him from exercising such powers upon a subsequent occasion if the contractor again makes default; nor shall such abstention absolve the contractor from liability to pay compensation for any default which he may have made.

Contractor remains liable to pay compensation if action not taken under clause 3.

Clause 4— If the Superintending Engineer exercise any of the powers given to him by clause 3 he may, if he so desires take possession of all or any tools plant materials and stores in or upon the work or the side thereof and belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof, and pay or allow the contractor for the same at the contract rate, or in the case of these not being applicable, at current market rates to be certified by the Superintending Engineer, whose certificate thereof shall be final, and if the Superintending Engineer does not desire to do so, the Superintending Engineer may, by notice in writing to the contractor or his clerk or the work's foreman or other authorized agent, required him to remove such tools, plant, material or stores from the premises (within a time to be specified in such notice); and if the contractor fails to comply with any such requisition, the Superintending Engineer may remove them at the contractor's expense and at his risk in all respects by auction or private sale and the certificate of the Superintending Engineer as to expenses of any such removal and the expenses of any such sale shall be final and conclusive against the contractor.

Power to take possession of or require removal of or sell contractor's plant.

Extension of times

Clause 5— If the contractor desires an extension of the time for completion of the work on the ground of any unavoidable hinderance to its execution having arisen, he shall apply in writing to the Superintending Engineer within 30 days the existence of such hinderance first becomes known to him and the Superintending Engineer shall if in his opinion (which shall be final) reasonable grounds be shown therefor, authorise such extension of time as may, in his opinion be necessary or proper.

Final certificates

Clause 6— On completion of the work the contractor shall send a registered notice to the ..... (Thereinafter called Engineer-in-Charge) giving the date of completion and shall also send a copy of such notice to the Superintending Engineer, and shall request the Engineer-in-Charge to give a certificate of completion. No such certificate will be given nor shall the work be considered to be complete until the contractor has removed from the premises on which the work has been executed all scaffolding, surplus materials and rubbish, and cleaned all wood-work, door, windows walls floor or other part of any building in, upon or about which the work has been executed or of which he may have had possession for the purpose of the execution thereof, and, if the contractor fails to do so on or before the date fixed for completion of work Engineer-in-Charge may do so, and may sell such scaffoldings and materials as have not been removed by the contractor and contractor shall forthwith pay all expenses so incurred and shall have no claim in respect of any such scaffolding, surplus materials as aforesaid except for any sum actually realized by the sale thereof. On completion the work shall be measured by the Engineer-in-Charge, whose measurements shall be binding and conclusive against the contractor.

Payment on intermediate certificate to be regarded as advances.

Clause 7— In the case of work estimated to cost more than rupees one thousand, the contractor shall, on submitting the bill thereof be entitled to receive a monthly payment proportionate to the part thereof then approved for such purpose by the Engineer-in-Charge, whose certificate of approval and passing of the sum so payable shall be final and conclusive against the contractor. But any such payments will only be made as advances to be credited to Government in the final settlement of accounts, with the contractor and not as payment for work completed and passed, and the making of any such payment shall not either preclude the Superintending Engineer or ..... from requiring the contractor to remove or reconstruct or re-erect any work on the ground that such work is bad, unsound, imperfect or unskilled or prevent Government from enforcing any claim against the contractor on account of any default by him or conclude, determine or affect in any way the default by him or conclude, determine or affect in any way the powers of the Engineer-in-Charge under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any

other way vary or affect the contractor. The Engineer-in-Charge's certificate of the measurement and of the total amount payable for the work shall be final and binding on all parties.

Inability to complete the work.

Clause 8— If the contractor abandons, or is unable to complete the work, the Superintending Engineer may certify in writing the value of the work done by the contractor towards the completion of the contract. Such a certificate shall be final and conclusive against the contractor and he will not be paid more than the value of such work as so certified irrespective of the contract rates.

Lump sum in estimates.

Clause 9— When the estimate on which a tender is made includes lump sum in respect 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 other such items of work, unless the part of the work in question is not in the opinion of the Engineer-in-Charge, capable of measurements in which case the Engineer-in-Charge, may pay such lump sum as he may determine to be the value thereof, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against contractor as to the basis upon which payment is to be made in such cases and as the amount to be paid.

Bill to be submitted monthly.

Clause 10— Every month on or before a date to be fixed by the Engineer-in-Charge the contractor shall if so required, submit a bill for all works executed by him during the previous month and the Engineer-in-Charge shall take or cause to be taken all measurements necessary for checking the contractor's bill and adjusting his claim as speedily as possible. if the contractor does not submit his bill within the time so fixed, the Engineer-in-Charge may after giving the contractor ..... days notice in writing measure or depute some one to measure such work in the presence of the contractor whose signature on the list of measurements shall be sufficient authority to the Engineer-in-Charge to draw up a bill based on such measurements and any bill drawn up shall be binding on the contractor. If the contractor fails to attend when such measurements are taken, such measurements shall be binding on him, and if he attends but refuses to sign the list of measurements, the matter shall be referred to the immediate superior of the Engineer-in-Charge whose decision shall be binding on the contractor.

Bills to be on printed forms.

Clause 11— The contractor shall submit all bills on the printed form which will be supplied to him at the office of the Engineer-in-Charge and all items in such bills shall be charged at the rates specified in the tender or in the case of any extra work ordered in pursuance of these condition; and not mentioned or provided for in the tender, at the rates here-inafter 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 materials to be supplied from the Engineer-in-Charge's store, or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-Charge (such materials and stores and the prices to be charged thereof as hereinafter mentioned being so far as practicable and for the convenience of the contractor specified in the Schedule hereto annexed but not so as in any way to control the meaning or effect of this contract), the contractor shall be supplied with such materials and stores as may from time to time be required by him for the purposes of the contract but only for such purposes and he shall pay for the same at the rates specified in the said Schedule or if no rates are so specified at cost price as defined in clause 13 thereof.

All materials so supplied to the contractor will become the property of the contractor, but shall not on any account be removed from the site of the work until the whole work is certified to be completed by the Superintending Engineer, except with the written permission of the Superintending Engineer, and shall at all times be open to inspection by the Engineer-in-Charge. The Superintending Engineer shall, however, have the option to take over any such materials, if unused at the time of the completion or termination of the contract at the specified issue rate or the current market rate, whichever is less.

Clause 13— All articles required by the contractor for the construction of the work and which the contractor is to supply himself, shall be obtained by the contractor from the firms which the Director of Industries has made arrangements and if for the supply of any article no such arrangements have been made, any such articles supplied by the contractor shall conform to such specification and/or tests, if any, as may be prescribed by the Director of Industries in consultation with the consuming department.

Stores imported from Europe to be obtained from Government.

Clause 14— The contractor shall obtain from the stores of the Engineer-in-Charge, all such imported stores or materials as may be required in any considerable quantity for the work or any part thereof or for making up articles required therefore or in connection therewith. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-Charge will be debited to the contractor in his account at the rates shown in the Schedule attached to the contract and if they are not entered in the Schedule they will be debited at the cost price, which for the purpose of this contract shall include the cost of carriage and all other expenses whatever which shall have been incurred in obtaining delivery of the same at the stores aforesaid. The ..... Engineer may issue materials to a contractor from existing stock if he ask for any excess of these entered in the schedules. In such cases the price charges will be

stock rate or the market rate which ever is greater.

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

Clause 15— The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner and in every respect in strict accordance with the specification both as regards materials and otherwise. 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 the contractor shall be entitled to inspect the same during office hours and may at his own expense have copies of the specifications, and of all such designs, drawings and instructions as aforesaid made for his own use.

Alterations, specification and designs.

Clause 16— The Engineer-in-Charge shall have power to make such alteration or additions to, the original specifications, drawing, design and instructions as 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 which, may be given to him in writing signed by the Engineer-in-Charge, and such alternations shall not invalidate the contract; and any additional work which the contractor may be so directed to do 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 per specified in the tender for the main work. The time for the completion of the work shall be extended in the proportion that the additional work bears to the original contract work, and the certificate of the Engineer-in-Charge shall be conclusive as to such proportions. If the additional work includes any item for which no rate is specified hereunder, then the contractor shall carry out the work at the rate entered in the Schedule of Rates of the District but if the Schedule dose not contain any rate for such work, then the contractor shall not begin such work until a rate in respect of such work has been settled by mutual agreement between him and the Engineer-in-Charge with the approval of the officer accepting the contract, and if they are unable to agree upon a rate within two weeks from the date when the contractor received the order, the Engineer-in-Charge may by a notice in writing cancel the order for such work and carry it out in such manner as he may think best. In the event of a dispute, the decision of the Superintending Engineer shall be final and binding on the contractor.

Do not invalidate contract

Extension in time in consequence of alterations.

Rates for additional works not in estimate or schedule of rate of the district.

No Compensation or alteration in or restriction of work to be carried out.

Clause 17— The Superintending Engineer acting on the written orders of his immediate superior, may at any time by notice in writing to the contractor either stop the work altogether or reduce or cut if down. If the work is stopped altogether, the contractor will only be paid for work done and expenses legitimately incurred by him on, or preparation for the execution of the work up to the date on which such notice is received by him. Such expenses shall be assessed by the Superintending Engineer,

whose decision shall be final and binding on the contractor. If the work is cut down, the contractor will be paid for the work as so cut down but in neither case will he be paid any compensation whatsoever for the loss or profit which he might have made if he had been allowed to complete all the work included in the tender.

Action &  
Compensation  
payable in case of  
hand work.

Clause 18— If the Engineer-in-Charge is satisfied that the construction of any part of the work is faulty or that materials used in the same are inferior to those for which the specification provides or that materials or articles provided by the contractor are not in accordance with the contract, he may, notwithstanding that such work materials or articles may have been passed, certified or paid for, serve the contractor with notice in writing specifying the work, materials or articles of which he complains and requiring the contractor to remedy such defects or to replace such materials or articles within a specified period of time.

If the contractor fails to comply, in all respects with the requirements of any such notice within ten days after the expiration of the period specified in that notice, the Engineer-in-charge may himself remedy such defects, or as the case may be, replace such materials or articles, and contractor shall pay all expenses incurred by the Engineer-in-charge in so doing and the certificate in writing of the Engineer-in-charge as to the amount of any such expense shall be final and binding upon the contractor.

Works to be open to  
inspection.

Clause 19— All works under or in course of execution or executed in pursuance of the contract shall at all times be open for inspection and supervision by the Engineer-in-Charge and his subordinates and the contractor shall at all times during the usual working hours, and on any other occasion of which he shall have had reasonable notice, either himself be present to receive orders and instructions, or have responsible agent duly accredited in writing present for that purpose. Orders given to any such agent have the same effect as order given to the contractor himself.

Clause 19-A— No labourer below the age of 18 years shall be employed on the work.

Clause 19-B— The contractor shall pay to his labourers a fair wages.

Clause 19-C— The contractor before he commences work shall (a) post in conspicuous place on the work a notice giving the rates of wages have been certified as fair by the Superintending Engineer, and (b) send a copy of the notice to the Superintending Engineer.

Clause 19-D— The contractor shall be bound and shall be responsible to comply with the provisions of the labour laws in force in the State of Uttar Pradesh including the Minimum Wages Act or any

enactment in supersession, extension or modification thereof which may be passed at any time or from time to time by a competent legislative body and may have effect in the State of Uttar Pradesh and the Rules and Regulations made thereunder or any amendments or modifications thereof for the time being in force. All expenses in connection with the compliance of such laws and rules shall be borne by the contractor with the compliance or such laws and rules shall be borne by the contractor, and the contractor shall neither demand nor claim nor shall be entitled to any additional payment for the reason that he failed to take into account any such expenses in his tender or that any subsequent amendments in such laws or rules have changed the basis on which he worked out such expenses while submitting his tender.

In every case in which by virtue of the provisions of the labour laws in force in the State of Uttar Pradesh and the rules and regulations made thereunder, the Government is obliged to pay any sum in the execution of the work, Government will recover from the contractor the amount so paid; and without prejudice to the other rights of the Government, the Government shall be at liberty to recover such amount or any part thereof by deducting it either from the security money deposited by the contractor or to his credit under clause I of these conditions or from any other sum due by Government to the contractor whether under this contract or otherwise.

Clause 19-E— The contractor shall engage labour for the work through nearest Employment Exchange.

Clause 19-F— The contractor will request the Employment Exchange to provide him labour on wages to be maintained by him which shall not be less than fair wages for the locality of the work fixed by the Superintending Engineer consultation with the District Magistrate concerned. He will also specify the period of the supply of labour which shall not be less than a week from the date of contractor's request for labour of the Employment Exchange. If the Employment Exchange fails to supply labour within the specified period the contractor will have the option to engage labour from other sources.

Clause 19-G— The labour employed through Exchange will be kept at par with and shall have no preference over the labour engaged by the contractor privately as regards their transport, wages, accommodations, working hours and amenities. The contractor will have the option to dispense with the labour without any reference to the Employment Exchange when such labour is not required for the work or when he is not satisfied with it but he will give due information of the discharge of labour to the Exchange.

Contractor or  
responsible agent to

Clause 20— In order that the work may be measured and the correct dimensions thereon taken, the contractor shall not cover up any

be present.

part of the same or otherwise place it beyond reach of measurement until he has either obtained the consent in writing of the Engineer-in-Charge or of his subordinate in-charge of the work or until he has given to the Engineer-in-Charge or to such subordinate five day's notice in writing that the work is ready for measurement. If the contractor covers up any work or places it beyond reach of the measurement without such consent and before the expiration of the period of such notice, the contractor shall either, as he may elect, strip such work at his own expense in order that it may be measured or shall forfeit the price of such work and of the materials used in its construction.

Notice to be given before work is covered up.

Clause 21— All works to be executed under the contract shall be executed under the direction and subject to the approval in all respect of the Engineer-in-Charge 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 of work.

Clause 22— Except where otherwise specified in the contract the decision of the Superintending Engineer for the time being shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meeting of the specifications, designs, drawings and instructions herein-before mentioned. The decision of such Engineer as to the quality of workmanship or materials used on the work, or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, design, drawing, specifications, estimates, instructions, order of these conditions, or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment of the contract by the contractor, shall also be final, conclusive and binding on the contractor.

Decision of Engineer to be final, contractor liable for damages done and for imperfections.

Clause 23— If the contractor or his work people or servants shall break, deface, injure or destroy any part of a building in which they may be working, or any building, road, fence, enclosure or grass land or ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while in progress from any cause due to negligence of responsibility (the decision of the Superintending Engineer shall be final), the contractor shall at his own expense make good such damage, or In default, the Engineer-in-Charge may cause the same to be made good and the contractor, shall pay any expenses so incurred and the certificate of the Engineer-in-Charge as to the amount of such expenses shall be final and binding on the contractor.

Contractor to supply plant, ladder, scaffolding etc.

Clause 24— The contractor shall supply at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores),

plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not or 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, and shall pay for the carriage of all such things to and from the work. The contractor shall also supply without charge workmen with the means and materials necessary for the purpose of setting out works, and for counting weighing and assisting in the measurement or examination of the work, or materials at any time. If the contractor fails to do so, the same may be provided by the Engineer-in-Charge and the contractor shall pay the cost of the same as certified by the Engineer-in-Charge, whose certificate shall be final. The contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall bear the expenses of defence of every suit, action or other proceeding at law that may be brought by any person for injury sustained owing to neglect of the above precautions, and shall also pay any damages and costs which may be awarded in any such suit action or proceeding to any such persons, or which may with the consent of the contractor be paid to compromise any claim by any such person.

and liable for damages arising from non-provision of light, fencing etc.

Female labour not to be employed.

Clause 25— The contractor shall not employ female labour in the execution of the work or any part thereof within the limits of cantonment.

Work not to sublet. Contract may be rescinded and security deposit forfeited for subletting, bribing or if contractor becomes insolvent.

Clause 26— The contractor shall not assign or sub-let the contract without the written approval of the Superintending Engineer and if the contractor does or attempts so to or becomes insolvent or commences any insolvency proceedings or makes attempts to make any composition with his creditors, or if he or any of his servants or agents either directly or indirectly, gives, offers or promises any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or other-wise to any public officer or person in the employ of Government in any way relating to his office or employments, or if any such officer or shall become in any way directly or indirectly interested in the contract without having first obtained the permission in writing of the Government, the.

Engineer 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 has been rescinded under clause 3 hereof, and in addition the contractor shall not be entitled to recover or be paid for any work there for actually performed under the contract.

Sum payable by way of compensation to be considered as reasonable

Clause 27— Any sum payable by the contractor as compensation under any of these conditions shall be deemed to be reasonable compensation for the act or default in respect of which the same becomes payable without proof of the actual amount or damage of loss sustained.

compensation with-out  
reference to actual loss.

Changes in constitution  
of firm.

Clause 28— In the case of a tender by partners, the contractor shall state the name of the members of the firm and shall notify to the Engineer-in-Charge any change in the constitution of the firm as soon as such change occurs.

Action where no  
specification.

Clause 29— In the case of any class of work for which there is no such specification as is mentioned in rule I, such work shall be carried out in accordance with the district specification, and if there is no district specification, the work shall be carried out in all respect in accordance with instructions and requirements of the Engineer-in-Charge.

Definition of work.

Clause 30— In these conditions unless there is something in the subject or context repugnant to such an interpretation, the expression 'works' or 'work' mean the work to be done or executed under the contract whether such work is permanent or temporary and whether it is original, altered, substituted or additional.

Contractor's percentage  
whether applied to net /  
gross amount of bills,

Clause 31— The additions and deductions on account of the percentage referred to in the accepted tender will be calculated on the gross, and not the net amounts of the bills for the work done.

Clause 32— (1) In every case in which by virtue of the provisions of section 12, sub-section (1) of the Workmen's Compensation Act, 1932, Government is obliged to pay compensation to a workman employed by the contractor or by any sub-contractor from him in the execution of the work government will recover from the contractor the amount of the compensation so paid; and without prejudice to the rights of the Government under section 12, subsection (2) of the said act, Government shall be at liberty to recover such amount or any part there of by deducting it either from the security money deposited by the contractor or to his credit under clause 1 of these conditions or from any other sum due by Government to the contractor whether under this contract or otherwise.

(2) Government shall not be bound to contest any claim made against it under section 12, sub-section (1) of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs which government might become liable in consequence of contesting the claim.

Clause 33— Notwithstanding anything stipulated in the aforesaid clauses, Government shall have power to retain any sum due to the contractor(s) and set off all claims against him (them) whether arising out of the particular contract or out of any other transaction or contract held him (them) alone or in partnership with others.

Clause 34— All disputes in respect of this contract arising between

contractor and the department shall be referred to next higher department authority to the officer entering into the contract. Either side may go in for the arbitration under relevant Arbitration Act in case of disagreement with the decision of the next higher Department authority as enumerated in clause 42 and 43 of General conditions of contract.

Clause 35— The tendered rate of each item of work shall be complete in itself and independent of other items and no loss or profit will be claimed in the event of exclusion of any item, each item of work shall be executed independently. Any item can vary to any extent. The contractor shall not be entitled to any claim or compensation on this account.

Clause 36— Contractor shall himself make proper living accommodation water and sanitary arrangements etc. For labour which should ordinarily be arranged through employment exchange and shall give preference to ex-service men. He will have to remove undesirable labour if ordered by the department.

Clause 37— No extra payment shall be made to the contractor for making profiles and 'NAMUNAS' in connection with the execution of work.

Clause 38— In case of Violation of condition of contract by the contractor the contract can be rescinded by the officer entering into the contract without entitling the contractor to any claim whatsoever.

Clause 39— All money found recoverable from the contractor in connection with contract may without prejudice to any other remedy provided by law be recovered as arrears of land revenue.

CLAUSE 40:— The contractor supply every labour employed by him with Wages Card in which the rates of wages, the attendance of the labour and payment will be entered.

CLAUSE 41:— During the course of construction if any emergency for putting forward any claim arises the contractor shall send a registered notice to the Engineer-in-Charge within a fortnight of the origin of the claims. If he fails to do so or if he postpones submission of such claim till completion of work, he will be entitled to no compensation.

CLAUSE 42:— The contractor shall not influence or divert labour borne on the Muster Roll of any contractor by paying higher wages or providing extra facilities without the permission of the Superintending Engineer and if he does so contrary to the above, he will be responsible for the loss or damage caused or claimed by the other and the decision of the Superintending Engineer as of the amount of damage shall be final and binding on both parties.

CLAUSE 43:— The agreement is subject to the standard specification. The clearance of site shall be done by the contractor at his own expenses.

CLAUSE 44:— The sum of money due and payable to the contractor including security deposits returnable to him under this contract may be appropriated by the Government or any other persons contracting through the secretary and set off against any claims of the purchaser or Govt. or such other persons for the payment of a sum of money arising out of or under any other Govt. or such other person or persons.

CLAUSE 45:— 2.24% Income–Tax on all payment or on the gross value of work done (including cost of materials) or at rate in force as per rules at the time of payment shall be deducted at source of the payment in terms of Income–Tax Act.

## TRADE TAX

The rate quoted by the contractor shall be deemed to be inclusive of The Trade–Tax, if any on the constructional plant, material and supplies (permanent, temporary and consumables) acquired for the purpose of the contract and on the services performed under the contract. Nothing in the contract shall relieve the contractor from the responsibility to pay any Trade–Tax that may be levied the U.P. Trade–Tax Act 1948 as amended from time to time in performance of this contract. During pursuance of the contract, the Engineer-in-Charge or any other persons responsible for making the payment to the contractor shall at the time of making such payment to the contractor either in cash or in any other manner, deduct an amount equal to that specified in Section 3-D of the aforesaid act as in force for the time being towards part or, as the case may be full satisfaction of the tax payable under the said Act on account of this contract, the amount presently specified in the said Section is 4 (FOUR) percentum of the amount payable to the contractor.

Schedule showing (approximate) materials to be supplied from Public Works Stores for works contracted to be executed and the rates at which they are to be charged for, vide Clause 12 of Conditions :—

Particulars	Rate at which the material will be charged to the Contractor			Place of Delivery
	Unit	Rs.	P.	
-----NIL-----				

IRRIGATION DEPARTMENT, UTTAR PRADESH

Division - RAMPUR CANAL DIVISION RAMPUR

Name of work- -----  
-----

Name of Contractor -----

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works proposed for execution by contract will be notified in a form of invitation to tender passed on a board hung up in the office of and signed by the Superintending Engineer. This form will state the work to be carried out, as well as the date for submitting and opening tender, and the time allowed for carrying out the work, also amount of earnest money to be deposited with the tender, and the amount of security deposit to be deposited by the successful tender and the percentages, if any, to be deducted from bills. This set of contract documents consisting of copies of drawing and details of the proposed work specification, schedules of quantities of various items of work. And a form of the printed conditions of contract together with the form of tender to be used, signed for the purpose of identification by the ..... and approved by the authority competent to make the contract shall be available for public inspection at the office of the ..... during the office hours.
2. In the event of the tender being submitted by a firm, it must be signed separately by each member there of, in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorizing him to do so.
3. Receipt for payments made account of work when executed by a firm must also be signed by the several partners except where the contractors are decried in their tender as a firm in which case the receipt must be signed in the name of the firm by one of the partners or by some other persons having authority to give effectual receipts for the firm.
4. Any contractor who submits a tender shall fill up the prescribed form of tender striking out the alternative offer on page 3 of the form not applicable to the case, Tenderer which propose any alteration in the work specified in the form of notice inviting tender or in the time allowed for carrying out the work or which contents any other conditions of any sort, of are not filled up in English or accompanied by the deposit or earnest money notified, will be liable of rejection. Tenders shall have the name of the work to which they refer written outside the envelope.
5. (i) Superintending Engineer or his duly authorised assistant will open tender in the presence of any intending contractors who may be present at the time and will enter the amount of several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded here with shall there upon be given to the contractor, who shall there upon for the purpose of identification, sign copies of the specification and other documents mentioned in rule I. In the event of a tender being rejected the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor making the same.
- (ii) When tenders are received by ..... he will open and deal with them in the manner specified above, and will submit them to the Superintending Engineer for orders. The earnest money if in currency notes shall be credited in the cash-book and paid into the Treasury, a

receipt in account form no. 3 being given to the party tendering. If earnest money is preferred in any of the securities specified in rule 9, it shall be entered in the register of securities account forms 85 and 86. Earnest money received in currency notes shall be returned to unsuccessful tenderness as soon as their tenders are rejected the usual stamp receipt being taken.

6. The accepting authority shall have the right or rejecting all or any of the tenders.
7. The receipt of an accountant or a clerk for the earnest money paid by the contractor will not be considered as any acknowledgement of payment to ..... and the contractor shall be responsible for seeing that he procures a receipt signed by .....
8. The memorandum of work tendered for shall be filled in and completed in the office of the ..... before the tender form is issued.
9. The amount of earnest money should ordinarily be :-

	<u>Rs.</u>
(a) When the amount of the tender does not exceed Rs. 2,000	50.00
(b) When exceeding Rs. 2,000 and not exceeding Rs. 5,000	100.00
(c) When exceeding Rs. 5,000 and not exceeding Rs. 10,000	200.00
(d) For each additional Rs. 5,000 or portion of 5,000 a further sum of	100.00

Such earnest money shall be deposited by the contractor in Government Treasury or sub treasury as laid down in paragraphs 340(b) (1), 344 and 345 (b) of the Financial Handbook Volume V, Part I, Account Rules and receipts treasury challan attached to the tender.

Note:- The Officer calling for the tender may in special cases where it would be inconvenient for tenders to deposit money into Government treasury relax the rule, and permit contractors deposit earnest money with him in cash of currency notes upto a limit of Rs. 100 instead of into a treasury. Such deposits should be treated as "Public Works Department Deposit".

## **TENDER OF WORKS**

**"I" or "We"**

\* Hereby tender for the execution for the Governor of Uttar Pradesh of the work specified in the underwritten memorandum within the time specified in the memorandum at the rate specified therein, and in accordance in all respects, with the specification, designs, drawings and instructions in writing referred to in rule 1 hereof and in clause 2 of the conditions of contract and with such materials as are provided for by and in other respects in accordance with such conditions so far as applicable.

**MEMORANDUM**

(a) General description.

(a) If several sub-works are included they should be detailed in a separate list.

(b) Estimated cost Rs.-----

(b) vide Rule 9 on ID form 112/2

(c) Earnest money Rs.-----

(d) Time allowed for the work from date of written order to commence Months.

Item No.	Item of work	Approximate number or quantity	Unit	Per	(c) TENDERED	(f) in figure		(f) in words
					Rate -----	Rs.	P.	

(c) Strike out the alternative and attach signature to it.

N.B.-(When tender are to be submitted at a percentage above or below the rate in the sanctioned estimate, the information in all the columns should be filled by the .....)

In case of works when contractors are required to quote their own rates for the different items of work the columns (f) should be left blank for tenderers to fill in.

**"I" or "We"**

\* ..... tender at ..... percent above the rates entered above.

Strike out the alternative and attach signature to it

+ or  
\* ..... Tender at the above rates.

Should this tender be accepted \* ..... hereby agreed to abide by the fulfill all the terms and provisions of the conditions of contract annexed to the approved set of contract documents, or in default thereof to forfeit and pay to Governor of Uttar Pradesh or his successor-in-office the sums of money mentioned in the said conditions.

\*\*Give particulars and numbers

The sum of Rs. \*\* ..... is herewith forwarded in currency notes as earnest money the full value of which shall be retained by Government on account of the security deposit specified in clause 1 of the conditions of contract.

Signature of witness to contractor's signature

Dated the ..... day of ....., 200  
Witness .....  
Address .....  
Occupation .....

Signature of contractor before submission of tender

\* .....  
+ .....

Here enter recommended or not

Date ..... Sub-Divisional Officer ..... Sub-Division  
\* .....

recommended"

+ .....

signature

signature

Date ..... Executive Engineer ..... Division

\* .....

+ .....

Signature and  
official designation  
of the accepting  
authority

Date ..... Superintending Engineer ..... Circle

\* .....

+ .....

Irrigation Works

The above tender is hereby accepted by me on behalf of Governor of Uttar Pradesh.

Dated the ..... day of ....., 200

## स्व घोषणा शपथ-पत्र

(निविदा प्रपत्र के साथ शपथ-पत्र मूलरूप में संलग्न किये जाने हेतु)

मैं.....पुत्र श्री.....

निवासी (स्थायी पता) .....

अस्थायी पता ..... का निवासी हूँ।

मैं शपथपूर्वक घोषणा करता हूँ :-

निविदादाता की  
फोटो

1. मैं सिंचाई विभाग का एए/ए/बी/सी/डी श्रेणी का पंजीकृत ठेकेदार हूँ/नहीं हूँ। (विभाग द्वारा निर्गत श्रेणी सम्बन्धित प्रमाण-पत्र संलग्न किया जाये) मेरे पास पर्याप्त चल और अचल सम्पत्ति है और व्यवसायिक रूप से मैं सिंचाई विभाग के कार्यों का पूरा करने के लिए सक्षम और समर्थ हूँ। मेरे पास आवश्यक मशीनें और उपकरण आदि भी हैं तथा मुझे इस कार्य का पर्याप्त अनुभव है।
2. सिंचाई विभाग द्वारा जो (कार्य का विवरण लिखा जाये) ..... कराने की निविदा निर्गत की गयी है उसके लिए मैं विभाग द्वारा निर्धारित प्रारूप पर निविदा भर रहा हूँ।
3. मेरे द्वारा दिये जा रहे प्रमाण-पत्र, चरित्र प्रमाण-पत्र/हैसियत प्रमाण-पत्र/आयकर प्रमाण-पत्र/व्यापार कर प्रमाण-पत्र/बिड सिक्योरिटी प्रमाण-पत्र/बिड कैपिसिटी प्रमाण-पत्र/जमानत धनराशि आदि का प्रमाण-पत्र अन्य सुसंगत अभिलेख आदि निविदा प्रपत्र के साथ पोर्टल पर अपलोड कर दिये गये हैं। विभाग की वांछनानुसार उन्हें मूलरूप में प्रस्तुत कर दिया जायेगा।
4. मेरा पैन नम्बर ..... है तथा आयकर विभाग द्वारा प्रदत्त नवीनतम आयकर प्रमाण-पत्र संलग्न है।
5. मेरे विरुद्ध अपराधिक मुकदमों का विवरण निम्न प्रकार है। यहाँ विवरण दिये जायें।  
(अ) मुकदमा नम्बर .....  
(ब) धारायें .....  
(स) थाना .....  
(द) जनपद .....  
(य) न्यायालय जहाँ मुकदमा चल रहा है.....
6. मैं सिंचाई विभाग अथवा राज्य सरकार के अन्य विभागों द्वारा ब्लैक लिस्टेड ठेकेदार की श्रेणी में नहीं आता हूँ। मैं अपराधिक गतिविधियों, माफिया तथा गैंगेस्टर गतिविधियों और संगठित अपराध करने की गतिविधियों और असामाजिक कार्यों आदि में लिप्त नहीं हूँ। मैं माफिया एवं अपराधी नहीं हूँ। मेरा चल-अचल कार्य तथा आचरण उत्तम है।
7. मेरे विरुद्ध जनपद में तथा प्रदेश में कोई भी मुकदमा दर्ज नहीं है।
8. यदि ठेका प्राप्त करने के पश्चात् मेरे विरुद्ध माफिया गतिविधियों/असामाजिक गतिविधियों एवं संगठित अपराधिक गतिविधियों में लिप्त होने के बारे में कोई शिकायत प्रमाणित पायी जाती है, तो सक्षम अधिकारी को यह अधिकार होगा, कि वह मेरा ठेका/अनुबंध निरस्त कर दें। इस पर मुझे कोई आपत्ति नहीं होगी। मेरे द्वारा यदि विभाग/राज्य सरकार के विरुद्ध कोई अपराधिक कृत्य किया जाता है अथवा सरकारी धन का गबन किया जाता है, तो सक्षम अधिकारी को अधिकार होगा, कि वह मेरे विरुद्ध अपराधिक मुकदमा नियमों के अन्तर्गत दर्ज कराये।
9. मैं अनुबन्ध की शर्तों के अनुसार समय से पूरी गुणवत्ता के साथ तथा निर्धारित विधिस्थितियों के अनुरूप कार्य पूरा करायें।
10. मेरा कार्य एवं आचरण उत्तम है।
11. मैं शपथ पूर्वक घोषणा करता हूँ कि मेरा स्थायी और अस्थायी पता निम्न प्रकार है :-  
(अ) स्थायी पता (दूरभाष सहित) .....  
(ब) अस्थायी पता (दूरभाष सहित) .....

(यहाँ पूरा पता दूरभाष सहित एवं पिनकोड सहित लिखा जाये)

12. मैं शपथ पूर्वक घोषणा करता हूँ, कि मैं उपरोक्त पते पर रहता हूँ तथा विभाग द्वारा प्रदान किये गये कार्य को पूरा होने तक मेरे किसी पते में सामान्यतः कोई परिवर्तन नहीं होगा। यदि अपरिहार्य परिस्थितियों में किसी पते में परिवर्तन होता है, तो इसकी सूचना मैं तत्काल अधिवासी अभियन्ता और जिला मजिस्ट्रेट/कलेक्टर को दूंगा।
13. मैं यह भी घोषणा करता हूँ कि विभाग के जिस कार्य के लिए मेरे द्वारा ठेका लिया जा रहा है, उसके सापेक्ष चल और

अचल सम्पत्ति का हैसियत प्रमाण-पत्र, जिला मजिस्ट्रेट/कलेक्टर (जनपद का नाम) ..... द्वारा प्राप्त करके संलग्न किया जा रहा है। यह भी घोशणा करता हूँ कि इस हैसियत प्रमाण-पत्र का उपयोग अन्य कार्यों के लिए नहीं किया जायेगा।

14. सिंचाई विभाग के किसी भी अवर अभियन्ता/सहायक अभियन्ता/अधिशासी अभियन्ता/अधीक्षण अभियन्ता या अन्य कोई स्टाफ का कोई भी नजदीकी रिश्तेदार मेरे/हमारे यहाँ सेवारत नहीं है।
15. मैं या मेरी फर्म/कम्पनी जिसमें मैं स्वयं निदेशक/पार्टनर/मालिकाना हक है, ने कहीं भी कार्य किया है, कभी मेरे नाम से जुड़ी कम्पनी जिसमें मैं निदेशक/पार्टनर रहा हूँ, ब्लैक लिस्टेड या दिवालिया घोषित नहीं किया गया हूँ।
16. मेरा पैन नम्बर ..... है तथा आयकर विभाग से नवीनतम कर निर्धारण वर्ष का आयकर प्रमाण-पत्र (फार्म-16) की सत्यापित प्रति संलग्न है।
17. मैं अपनी पूर्ण जानकारी में पूरे होषो-हवास में स्व स्वस्थचित से पूरी सत्यनिश्ठा से तथा स्वेच्छा से यह शपथ-पत्र लिख दे रहा हूँ। ईश्वर मेरी मदद करें।

संलग्नक :- नवीनतम आयकर निर्धारण।

दिनांक :-

शपथी का पूरा हस्ताक्षर :-

पूरा नाम :-

पता :-