

Hindu Religious Charitable Endowments Department

CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE 315, MINT STREET, CHENNAI - 600 003

# **RE-TENDER SCHEDULE**

NAME OF WORK :	"CONSTRUCTION OF COMMERCIAL BUILDING AT TEMPLE LAND BEARING DOOR NO 5, EKAMBARESWARAR AGRAHARAM STREET, CHENNAI -03".
E.M.D.	Rs 35,500/-
Total number of Pages	109 Pages
in this tender document	Re – Tender – Conditions – 100 pages,
	Schedule 'A' 8 Pages,
	Drawing – 1 Pages)
Number of items in	21 items including sub items
Schedule 'A'	
Tender shall be	12.08.2022 – Up to 3.00 PM
submitted on or before	

PREAMBLE

### CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE,315, MINT STREET, CHENNAI -03

2

The temple is dedicated to Lord Ekambareswarar. Ekambareswarar is another name for Lord Shiva. Let me write about the temple structure first. Opposite to the main temple, there is a shrine dedicated to Lord Ganesha. This shrine is separately located from the main temple. Once you enter into the main temple complex, if you enter into the shrine to your left, you can find 300 years old Arasa or Ashvastha tree (a sacred tree in South India). Under the tree, there is a small shrine for Lord Shiva (called as Ramanathar). You can also find the idols of Sakthi, Vishnu, Ganesha and Surya (Sun God) in this shrine. There is also an idol of Mariamman separately near the shrine. After worshipping this place, if you enter further into the main temple, you can find Gajasthamba. After that, there are shrines for Nataraja–Sivakami, Dwara Ganapati with his consorts, Subramanya with his consorts, Pitchandeswara, Somaskandar, and a lot of metal idols.

If you further proceed into the main temple, there are two main shrines – one dedicated to Lord Ekambareswarar in Shiv linga form. Only few people would notice the idol of Kamakshi Amman situated next to Shiv Linga. There is another main shrine in which the beautiful idol of Goddess Kamakshi is found instanding posture.

The corridor (prakara) surrounding the two main shrines has a lot of idols and shrines. There are idols such as Ganesha, Hanuman, Dakshinamurthy, Vishnu, Brahma, Chandikeswarar, Surya (Sun), and Chandra (Moon). There are shrines of Adi Sankara, Ganesha, Subramanya with consorts, and Durga. The highlight is the shrines of various forms of Lord Shiva such as Vruddagireeswarar, Vadaranweswar, Kasi Viswanathar, Arunachaleswarar, Chidambareswarar, Kalatheeswarar, and Jambukeswarar. All these different forms of Shiv linga are main deities of some famous pilgrimages all over India. The idol of Kasi Viswanathar is huge and attractive along with Ganesh and Subramanya idols. There is a separate shrine forVisalaxia long with the idol of Annapoorni.

There is a separate shrine for Navagraha (nine planets). The Navagraha of this temple is very popular and believed to be very powerful. Apart from the small corridor, there is a big corridor (shrine) surrounding the main shrines. In that corridor, there is a separate shrine for Lord Ganesha under the Vanni tree. There are idols of Vallalar and Chandikeswarar also found. Next to that you can find the temple tank (water is also present in the tank Near the tank the shrine of Vaveshwar (a form of Lord Shiva found in Rajasthan state) is found under a holy tree. There is another Arasa tree where you can find a single sculpture with five headed Ganesha on one side and Subramanya under five headed snake on the other side, which is very rare. There are also small shrines for Bhairav and Hanuman.

In the Assembly during 2021–2022 Budget sessions, Hon'ble Minister for Hindu Religious and Charitable Endowment Department at an initial cost of 1 Crore in a S.no 34 Dated : 04.09.2021 has announced that the addition of Commercial Building which will be beneficial to the temple and the local community.

In line with the above, Construction of Commercial Building belongs to Chennai Arulmigu Ekambarasarar temple, No.5 Mint street, Chennai – 03 is proposed to improve the fund position

(Sd ) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

Contractor

### Architectural Details:-

No of Floors – Ground and First Floor (G+1) PLINTH AREA Ground floor – 1870.00 Sq.ft First floor area – 1240.00 Sq.ft Terrace 635.00 Total Plinth area – 3745.00 Sq.ft

Following item of works as follows

- 1. Earthwork Excavation
- 2. Supply and filling of Quarry dust (Stone dust) and Gravel Mix 1:3
- 3. Supplying and fiiling in foundation basement with Gravel
- 4. Plain Cement Concrete 1:4:8
- 5. Supplying and laying of ready mix concrete RMC M25 Grade
- 6. Supplying & Erecting of steel centering
- 7. Fabrication of Steel for all RCC works
- 8. Brick work in In Cement Mortar 1:5
- 9. Brick partition walls of 11.50cm thickness
- 10. Plastering walls with cement mortar 1:5
- 11. Special Plastering with cement mortar 1:3
- 12. Supplying and Fixing of Plain Pre laminated ABS door
- 13. Supplying and fixing of UPVC windows
- 14. Supplying and fixing of UPVC ventilator
- 15. Supplying and fixing M.S Grill
- 16. Fabricating supplying and fixing in position of Solid PVC Doors
- 17. Manufacturing supplying and fixing Stainless steel Hand rails
- 18. Supplying and fixing in position Color glazed European water closet (Color)
- 19. Supplying, fixing in position best approved BIS quality PVC Rainwater downfall pipe of 110mm
- 20. Painting New iron works with Two coat of synthetic enamel paint
- 21. Paving the flooring with Vertified tiles of size 600mm x 600mm x 8mm
- 22. Dadooing walls with best approved quality colour glazed tiles
- 23. Weathering course in Brick jelly and lime concrete
- 24. Finishing the top of Roof with one course of machine Pressed Tiles
- 25. Painting the new walls two coats over one coat of priming with best Plastic Emulsion paint
- 26. Painting new iron works with two coats of approved quality and color of Synthetic Enamel paint
- 27. Flooring with following color Ceramic Tiles
- 28. Paving the floor with pre-polished concrete Anti-skid Tiles

Estimate has been priced based on PWD schedule of rate 2021–22. The expenditure may meet out from Temple Fund. ON Necessary provisions for electrical, plumbing, treatment of water inlet and aeration of the water is considered under the lump sum provisions.

# PARTICULARS TO BE FURNISHED BY TENDERERS

1.	Name of Tenderer and address	:	
2.	Name of work	:	
3. 4.	Date of Tender Total value of Tender	:	Rs
5.	Details about E.M.D. Enclosed for the tender and its validity Including the Goods and Services Tax (GST) Amount	:	
6.	Registered class of the Tenderer with monetary limit and department in which registered (certified copy of the Registration should be attached.	:	
7.	Recent works executed (Details about the name and place of work, value of the works, etc., should be furnished.)	:	
8	Works under execution (Details about the name and place of work, value of the works, etc., should be furnished.)	:	
9.	Command of labour in brief	:	
10	Turnover of previous years (particulars for a period of three consecutive years to be furnished)	:	
11.	Whether Income Tax clearance certificate is enclosed; if not, when it will be produced.	:	
12	Whether GST clearance certificate is enclosed. If not when will it be produced ?	:	
13	In case of registered co-operative societies, they should furnish name of the nominee with their credentials at the time of tender itself. They should also certify that the nominee of the society is not a registered contractor.	:	
14	Technical Assistant Details	:	

а	Name				:
	Qualification certi	ficate			:
	Experience certifi	icate			:
b	Name				:
	Qualification certi	ficate			:
	Experience certifi	icate			:
с	Name				:
	If retired	Civil	Engine	er	:
	Designation a	nd o	date	of	
	retirement. (Copy	enclos	ed)		
15	if any other partic	ulars			:
					:
	Note: The conse	nt lette	r from t	he	

Note: The consent letter from the Technical Assistant proposed to be employed should be obtained and enclosed with the Tender OR

# DECLARATION TO BE GIVEN BY THE UNEMPLOYED ENGINEER

1	Name	:	
2	Address	:	
3	Age	:	
4	Native Place	:	
5	District	:	

Contractor

6	Qualification	:	
7	Year of Passing	:	
8	No of years of Employment	:	
9	Name of the Division in which	:	
	registered as an unemployed		
	Engineer		
10	Date of Registration	:	
11	Class of Contractor	:	
	Monetary limit	:	
12	Previous experience in Year	:	
а	Irrigation	:	
b	Head Works	:	
С	Building	:	
	<b>.</b>		
d	Bridges	:	
	011		
е	Others	:	

Contractor

(Sd ) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

6

	Details with regard to name of work, nature of work etc., may be furnished in a separate sheet							
	Contracts	Name of work (2	2)	Value of work	Period of work	Nomination of Tender		
	(1)			(3)	(4)	(5)		
13	Annual Turr	nover for First	:					
	Three Years							
14	Solvency / Im	nmovable / Cash	:					
15	Tools and Pla	ints Owned	:					
16	Was there	any default in	:					
	fulfilling terms	s of contract and						
	result and per	nal action						
17	Special remar	rks if any	:					
	Station							
				ignature and name	e of the Unemploye	ed Engineer		
	Date							

# ADDITIONAL GENERAL CONDITIONS (i.e.) IN ADDITION TO GENERAL CONDITIONS TO CONTRACT APPENDED WITH T.N.B.P.

# 1. POSTAL TENDERS :-

- 1.1) The contractor may have the option to present the tender directly or to send registered post acknowledgement due; on or before the last date for receipt of tenders. **12.08.2022** Upto 3.00 **PM**
- 1.2) In case of sending tenders by registered post acknowledgement due it is the responsibility of the tender himself to dispatch the tender sufficiently early so as to reach the tender opening
   Authority, before the date and time, notified in the tender notice, for opening of tenders.

Contractor

1.3) No representation appeal of any kind will be allowed against belated receipt of tenders by post beyond the notified date and time or loss in transit etc.

### 2. <u>E.M.D</u>

The acceptance of EMD in various approved forms in the shape of Demand draft of the nationalized and scheduled banks in the name of the EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI–03 concerned is subject to the specific condition that the successful Tenderer should pay the Security Deposit (including E.M.D) in the form of small savings scripts\ deposits\Accounts in lieu of other mode of payment for E.M.D. If offering Indravikas patras, the Contractor should note his name in the back side of the said patras and to furnish a letter stating that he is submitting the Indravikas patras of such Indira Vikas Patras will only be taken for calculation.

#### 3. SECURITY DEPOSIT :

In case of contracts for Buildings works the Security Deposit (i.e., 2% of the value of contract minus the E.M.D. already remitted) will be collected at one time only. equivalent to 2% of the contract value including GST Amount )

The Security Deposit can be paid to the contractor asking them to invest the amount so paid in small savings scripts and to hand over to the **Executive officer** concerned by pledging them in his favour, subject to the condition that unless the contractor remit the security deposit in small savings scripts (which will be returned after observing the rules in force), their further bill to the work carried out by them will not be paid. Additional security deposit will have to paid by successful Tenderer if called for, Irrevocable bank guaranty in the prescribed form shall be accepted towards security deposit retention money also (G.O.Ms.No.283/PW(G2)Dept./Dt.21.05.99).

### 4. QUANTITY RATES BY TENDERER :

The Tenderer shall quote the rates and prices (both in figures and words) for all the items of the Works described in the Bill of Quantities **excluding GST** along with sum of the quoted tender value **excluding GST** at the end (both in figures and words).

8

### 5.WITHHELD AMOUNT:

The withheld amount @ 5% (percent) be recovered from each bill based on the value of work done.

# 6. <u>CLAIMS OF CONTRACTORS ON ACCOUNT OF LOSSES DUE TO UNPRECEDENTED FLOODS</u> AND OTHER ACTS OF GOD :

The work executed by the contractor under this contract shall be maintained at the contractor's risk until the work is taken over by the Executive officer or his authorized representatives. This Temple administration shall not be liable to pay for, any loss of damages occasioned by or arising out of fire, flood, volcanic eruption, earth quakes, other convulsions of nature and all other natural calamities, risks arising out of acts of God during such period and that the option whether to take insurance coverage or not to cover such risks is left to the contractor.

### 7. STANDARD SPECIFICATIONS :

For detailed description of various items of work to be executed in addition to the brief description given in the schedule and for the rights and obligations of the Contractors etc, the attention of the contractors is invited to Tamil Nadu Building practice which should be followed in all respects both in letter and spirit. The materials used, the workmanship, the mode of execution of the work etc., should conform to relevant specification of TNBP or Indian Standard Specifications as may be specified.

#### 8. SAFETY CODE :

The safety measures and all amenities for the labours shall be made by the Contractor at his cost as indicated in the safety code vide appendix to General Conditions to Contact and clause 34,35 and 42.1 to 42.6 of General Conditions to Contract.

#### 9. <u>RETENTION OF 2½% FOR ONE YEAR :</u>

In case of contract for construction of building either permanent or semi Permanent buildings, a sum equivalent to 2<sup>1</sup>/<sub>2</sub> % of the value of work done will retained with the Government for a period of one year reckoned from the date of completion of the work in order to enable the departmental officers to watch the effect of all seasons on the work done by the contractor. The amount so retained with the Government will be refunded, only on expiry of one-year period referred to above and on execution of indemnity bond by the contractor for further period of four years.

The contractor shall be liable to set right all defect arising out his faulty Execution of sub standard work notice during the above five years period at his cost (G.O.Ms.No.283/PW(G2) Dept. / Dt.21.05.99). In addition to the aforesaid security deposit, retention amount shall be deducted from the running account bills, a sum equivalent to 5% (Five Percent) of the total value (including the Goods and Services Tax (GST) Amount for all the running account bill) of each bill as retention money. Out of the 5% retention amount, 2% % (Two and half Percent)

Contractor

of the total value of the work so far executed will be released to the contractor on payment of final bill, and in the final bill, the Goods and Services Tax (GST) amount retained in previous payment has to be released to the contractor without interest.

And the balance  $2\frac{1}{2}$  will be retained for a period of --- year reckoned from the date of completion of the work, as all defects shall have been made good according to the true intent and meaning hereof, whichever shall happen last. The retention money of  $2\frac{1}{2}$  including GST (Two and a Half Percent) of the total value of contract after deducting any amount due to the Department, shall be refunded to the Bidder without interest after the defects liabilities attached to the contract is over.

### **10. CIVIL CONTRACTOR**

The Civil Contractor should furnish an undertaking from the Electrical Engineer who is having electrical License issued from Electrical Licensing Board, Government of Tamil Nadu stating that the concerned electrical works will be executed under his super vision.

### 11. ELECTRICAL CONTRACTOR

1) The Electrical Contractor has engaged qualified Civil Engineer with good credentials in Civil Engineering works.

 The Electrical Contractor have to produce consent letter from the Civil Engineer stating that they are link to work in the particular site.

3) The Electrical Contractor can participate in Civil work also up to their eligibility in electrical work according to the calls under which they have been registered.

# CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE 315, MINT STREET, CHENNAI – 600 003

Name of Work	"CONSTRUCTION	OF COMMER	CIAL BUILDING AT
	TEMPLE LAND	BEARING	DOOR NO 5,
	EKAMBARESWAR	AR AGRAHARAM	I STREET,
	Chennai -03".		
Last date for receipt of Tender	12.08.2022 up to 3.	00 PM	
Date and time of opening	12.08.2022 at 4.00	РМ	
E.M.D to be remitted	Rs. 35,500/- (Ru	pees Thirty Five	Thousand and Five
	Hundred Only)		
Eligibility Criteria	Only the contractors	registered with Ta	amilnadu State Public
	Works Department ur	nder Class. I (State	e level as per revised
	classification) with I	nonetary limit <b>ab</b>	ove Rs. 75 Lakhs
	(Rupees Seventy Five	Eakhs) with Live of	certificate and proven
	track record are eligib	le.	
Period of Completion	9 Months (NINE MON	THS)	
Mode of E.M.D. to be remitted	In the shape of Dem	and Draft of the	any nationalized and
	Scheduled Banks dra	wn in favour of	EXECUTIVE OFFICER,
	CHENNAI ARULMIGU I	EKAMBARESWARAF	r Temple, Chennai-
	03".		

Note:

- 1 The tender and E.M.D. should be enclosed in separate covers, both the covers should then be submitted in a common sealed cover. All the three covers should be sealed. Tenders not submitted in sealed cover will be summarily rejected.
- 2 The rate In words and figures for each item of schedule should be furnished by the Tenderer without fall In appropriate columns. Corrections scribbling overwriting and erasing (should be avoided as far as possible) should be attested by the contractor.
- 3 The total value of each Item of work should be worked out and entered in the amount Column. Proper care must be taken in writing the value of each item of work taking Into

Contractor

account the unit for which the rate is quoted and the quantity of work to be done under the Item.

- 4 The total of each page should be noted at the end of each page and carried over to next page. The grand total value of the tender should be worked out and furnished at **the** end, both in words and figures.
- 5 The Tenderer shall quote the rates and prices (both in figures and words) for all the items of the Works described in the Bill of Quantities **excluding GST** along with sum of the quoted tender value **excluding GST** at the end (both in figures and words).
- 6 The Tenderer shall quote the rates excluding GST for the quantity and units specified under metric units under schedule.

### FOR SPECIAL ATTENTION OF THE TENDERER

- 1 The Tender documents will be issued to the contractors registered in Public works Department in the appropriate class.
- 2 Proof of the Tenderer registration in P.W.D., as a contractor shall be attached with the tender
- 3 Current Income Tax Clearance Certificate shall be enclosed with the tender.
- 4 The Tenderer should furnish the copy of Goods and Service Tax (GST) Registration no and **Form GSTR – 3B for** the previous three months.
- 5 E.M.D. will be accepted in the shape of Deposit at Call receipt, Demand Draft of the Nationalized and Scheduled banks drawn in the name of EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03".and National Saving Script / Deposit / Indira Vikas Patras / Accounts of Postal Department pledged in favour of EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03".are acceptable. The Tenderer should also give an undertaking to EXECUTIVE

**OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI**-03". in writing that the Indira Vikas Patras bearing relevant register number are submitted as E.M.D. No other mode of payment will be accepted.

- 6 The successful Tenderer should convert the E.M.D. already deposited and additional security deposit if any required for the fulfillment of contract into National Savings Certificates / Accounts pledged in favour of the EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03".
- 7 The following particulars shall also be furnished by the contractor along with the tenders
- a A list of details of works executed by the contractors with their value.
- b A list of details of works under execution by the contract with their values
- c Annual turnover of the contractor for the last one year. Necessary certificate to the effect issued by the respective Bank shall be attached.
- The Successful Tenderer when informed that his tender is under consideration shall have to furnish PERT CHART in the proper form within a week from the date of receipt of letter calling for PERT CHART. The PERT CHART should confirm to the department time schedule for the completion of the work furnished in the tender notice. If the PERT CHART is not received within a week time from the date of communication, his tender will not be considered.
- 9 If the Tenderer is an individual, the tender should be signed by the individual with his full name and his current address
- 10 If the Tenderer is made by a sole Proprietary Firm, it shall be signed by the proprietor along with his full name, Name of the firm with it's current address. Documents about Registration as FIRM by the Registrar of Firms should be produced.
- 11 If the Tenderer is a FIRM in partnership it shall be signed, by all the partners of the Firm with their full names with current address or by a PARTNER authorized by the Firm (either as per Articles of the Deed of Partnership, ;or by Power of Attorney) for signing in Tenders, Agreements etc., In which case, certified copy of the Registered Deed of Partnership along with the current address of all the partners and a certified photocopy of the Registered Power of Attorney issued in favor of the Signatory, should be produced
- 12 If the Tenderer is a "Limited Company" or a "Limited Corporation", it shall be signed by a duly authorized person holding the power of attorney for signing the schedule, in which case, the certified copy of the power of attorney shall accompany the Qualification schedule. Such limited company or Corporation shall also furnish satisfactory evidence of its existence along with the Qualification schedule.

### 13 Tender from JOINT VENTURES are not acceptable.

- 14 All the Signatures in the Tender documents and all the signatures in the Documents produced, shall be dated.
- 15 All the original of the documentary evidences, shall be produced, if asked for, for verification at the time of opening of Qualification schedule or subsequently.

### SPECIAL INSTRUCTIONS TO THE TENDERERS

- 1 The Tenderer should carefully go through the tender schedule and quote their rates for all items.
- 2 The rates/ percentage should be filled in neatly in figures and in words and taking into account the metric units specified in the tender, scribbling, over writings and erasings should be avoided as far as possible.
- 3 The amount of each item of work should be worked out. Proper care must be taken in working out the amount of each item of work taking into account the unit for which the rates quoted and the quantity of work to be done under the item.
- The total for each page should be arrived at and carried over to every page and the grand total value of work should be worked out and shown at the end. And the Tenderer shall quote the rates and prices (both in figures and words) for all the items of the works described in the bill of Quantities excluding GST along with sum of the quoted tender value excluding GST at the end (both in figures and words).
- 5 The tender should be submitted along with the covering letter giving full details as called for in the tender notice and with the copy of letter registering them into the appropriate class and the Details of the earned Money Deposit remitted such as small savings Scripts, D.D., in which the earnest Money Deposit was paid.
- 6 In case the Tenderers who are eligible for concessional Earnest Money Deposit and accordingly they should furnish the reference No. and date in which the concession was granted to them. A copy of this aforesaid reference may be enclosed along with the tender for ready reference.
- 7 Income Tax Clearance Certificate for the current year should be submitted along with the tender or the tender in which the Income Tax Clearance Certificate for the current year was submitted to this office should be specified.

- B Details of previous work done by the Tenderers covering the cost of work the agreement No and date, the Department in which the work was carried our etc., so as to assess the previous experience of the Tenderers. Year wise details should be furnished so as to see that the Tenderers have minimum experience of major buildings.
- 9 List of various machinery and other equipments at the Tenderer disposal for use in the execution of the work should be furnished.
- 10 The tender form should be filled in while submitting the tender. The tenders submitted without filling up the tender form is liable to be rejected.
- 11 The tenders must be submitted in a foolscap cover duly signing all the conditions, Plans and schedule issued as tender documents.
- 12 The Tenderer should fill up the Annexure to the Tender schedule furnishing there to the required information
- 13 The Tenderers should furnish the particulars of name, address and technical qualification of the Technical Assistant proposed to be employed by them to look after the execution of this work as per terms and conditions of the contract
- 14 All pages of the tender should be signed by the Tenderer and corrections in rates should be duly attested be them.

# SPECIAL CONDITION Add New Conditions for Goods and Services Tax (GST)

The Government of India has notified vide Notification No. 20 / 2017 – Central Tax (Rate), dated 22nd August, 2017 and Notification 21 No.24 / 2017 – Central Tax (Rate), dated 21st September, 2017, the concessional rate of the Goods and Services Tax (GST) at 12% [CGST at 6% + SGST at 6%] is leviable for any Government Contract, whether Civil or Electrical, irrespective of the Goods and Services Tax (GST) rate applicable on purchase of goods used in the execution of Government Contract.

And the GST amount will be calculated at 12% from the sum of total tendered value quoted by the Tenderer for construction cost (excluding GST) specified in the BOQ, Subject to GST rate applicable from time to time as recommended by the GST Council

"All duties, taxes, and other levies except GST, payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder"

### INPUT TAX CREDIT (ITC)

a) As per Notification 202, dated 29.06.2017 and as per sub-section (2) of Section 7 of the Tamil Nadu Goods and Services Act, 2017, (Tamil Nadu Act 19 of 2017), activities or transactions undertaken by State Government shall be treated neither as supply of goods nor a supply of service.

b) As per Chapter IX (Section 41) of the Tamil Nadu Goods and Services Act, 2017, every registered persons may be entitled to take the credit of eligible input tax, as self-assessed, in his return and such amount shall be credited on a provisional basis to his electronic credit ledger.

c) As per PWD Revised SOR (2017-18), dated 21.10.2017, under General Note, 8 (ix), the Contractor is eligible to get refund of excess tax paid over or liable to pay tax for this Contract Work.

### TOTAL TENDER PRICE

1. The total tender price will be the cumulative of value quoted for construction (Total Basic Rate + GST). The amount of EMD is fixed at 1% of the contract value of work put to tender (including the GST Amount)"

### **NEGOTIATIONS**

Contractor

"After negotiation with lowest Tenderer, the GST amount will be recalculated at 12% of the sum of the Negotiated tender value (excluding GST) for construction Cost specified in the BOQ, subject to GST rate applicable from time to time as recommended by the GST Council.

### AWARD OF CONTRACT

To be substantially responsive to the bidding documents and who has offered the lowest evaluated total tender price (Total Quoted Value including the Goods and Services Tax (GST) Amount).

### MINIMUM CRITERIA FOR QUALIFICATION

The Applicant should produce Income Tax Clearance Certificate valid for the current period, "VAT" Verification Certificate (i.e. previous assessment year) and "TIN" number having validity and copy of Goods and Services Tax (GST) Registration No

### WORK EXPERIENCE :

The applicants should have completed **TWO similar nature** of COMMERICAL BUILDING works at least in past five years.

# <u>APPENDIX – 1</u>

### Tender Notice (As amended in GO. MS. No 618 / PWD dated 30.04.85)

Sealed tender will be received by EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARTEMPLE, CHENNAI-03". at his office up to 3.00 PM on 12.08.2022 for the work of "Construction Of Commercial Building At Temple Land Bearing Door No 5, Ekambareswarar Agraharam Street, Chennai -03". The tenders so received from 27.07.2022 upto 11.08.2022 and those received by post up to 3.00 PM on 12.08.2022 will be opened on 12.08.2022. at 4.00 PM.

The tender should be in the prescribed form obtainable from the office of EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03". The tenders will be opened by EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03", at the place and on the date afore mentioned at 4.00 PM.

1. The Tenderers or their agents are expected to be present at the time of opening of the tenders. The Tenderer receiving officer will, on opening each tender, prepare a statement of the attested and unattested corrections therein and hand it over to the Tenderer concerned and initial all corrections in the presence of the Tenderers. If any Tenderers of their agents find it inconvenient to be present at the time, then in such a case the tender receiving officer will, on opening the tender of the absentee Tenderer, make

out a statement of the unattested corrections and communicate it to him. The absentee Tenderer shall then accept the statement of the corrections without any question whatsoever.

2. Tenders must be submitted in sealed covers and should be addressed to EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03" Both the name of the tender and work are being noted on the cover.

If the tender is made by an individual, it shall be signed with his full name and his address shall be given. If it is made by a firm, it shall be signed with the co-partnership name by a member of the firm who shall also sign his own name and the name and address of each member of the firm shall be given, if the tender is made by a corporation, it shall be signed by and authorised officer who shall produce with his tender, satisfactory evidence of his authorisation. Such tendering corporation may be required before the contract is executed, to furnish evidence of its corporate existence.

3. Each Tenderer must also send a certificate of Income Tax verification form the appropriate Income-Tax authority in the form prescribed therefore. This certificate will be valid for one year from the date of issue for all tenders submitted during the period. In the case proprietary and partnership firm, it will be necessary to produce the certificate afore mentioned for the proprietor or proprietors and for each of the partner as the case may be.

If the Tenderer is a registered P.W.D., contractor and if a certificate for the current year has already been produced by him during the calendar year in which the tender is made, it will be sufficient if particulars regarding the previous occasion on which the same certificate was produced are given.

Tenders received without a certificate as aforementioned will be summarily rejected.

4. Each Tenderer must pay as Earnest Money a sum of Rs.35,500/- (Rupees Thirty Five Thousand and Five Hundred only.) in the shape of Deposit at Call receipt, Demand Draft of the Nationalized and Scheduled banks drawn in the name of EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-O3 and National Saving Script / Deposit / Indira Vikas Patras / Accounts of Postal Department pledged in favour of of EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-O3 and enclose with his tender. The Tenderer may also remit the EMD cost in the Temple treasury and enclose the paid challan with his tender. The Earnest Money Deposit can also be paid in any other forms as may be approved by the State Government from time to time as per para 155 of T.N.P.W.D. code.

The Earnest Money will be refunded to the unsuccessful Tenderer on application, after intimation is sent of rejection of the tender or at the expiration of Ninety days from the date of tenders whichever is earlier. The Earnest Money will not be received in cash or currency. No other mode of payment will be accepted. Bank Guarantee of any kind not be accepted.

Contractor

The Earnest Money Deposit should be remitted in the shape of Small Savings Scripts Deposits, Pass Books, National Savings Certificates, Indira Vikas Patras. If the Earnest Money is remitted in the shape of National Savings Certificates and Kisan Vikas Patras, it must be pledged in favour of the **of EXECUTIVE OFFICER**, **CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE**, CHENNAI–O3. If E.M.D is in the shape of Indira Vikas Patras, the name and address of the contactor should be filled in ink in the rear side of the Indira Vikas Patras and a consent letter should be enclosed mentioning the work for which EMD is remitted.

If the E.M.D. in the shape of N.S.C. and K.V.P, is not pledged, the tender will be summarily rejected. The E.M.D. in the shape of Demand Draft / Bankers' cheque, should be drawn in favour of the of EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-O3 by designation only.

The earnest money deposit will not carry any interest. It will be dealt with as provided in the tender. The successful Tenderer should convert the earnest money deposit already remitted into small savings script / Deposits / Accounts and pledge the same in the name of the of **EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI–O3**, before signing the agreement.

5. (i) The tender will remain valid for a period of **Ninety days** from the last date for receipt of tender. The validity period can be extended further, if the contractor given his consent in writing, specifying the period of extension.

ii) The Tenderer whose tender is under consideration shall attend of **EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-O3**, Madurai office, before the end of the period specified by written intimation to him. If the Tenderer fails to attend the office before the end of the specified period, his tender will not be considered. He shall forthwith, upon intimation being given to him of acceptance of his tender, by the officer duly authorized in this behalf under article 299(1) of the Constitution, hereinafter called the accepting authority, make a security deposit of 2% of the value of contract in one of the forms prescribed in Tamilnadu Public works 'A' code (i.e. by taking into account the amount of earnest money deposit (1% of the estimate cost) already deposited with the tender, it would be sufficient to pay the balance amount to make up the 2% of the value of contract for the purpose of security deposit.

The above additional security deposit at 1% will be produced before signing the agreement. However, the security deposit of one percent of the estimate cost of work can be deposited as one time deposit by the contractor. The security deposit to together with earnest money deposit and the amount withheld according to clause 64(1) of General conditions to the contract shall be retained as security for due fulfillment of contract. If Cash Security deposit is made by the contractor, he shall follow the procedure laid down in the preceding paragraph for payment of earnest money deposit and such deposit shall not bear any interest. An additional

Contractor

Security deposit of 1% of the value of contract in one of the forms prescribed above will be remitted by the successful Tenderer, if called for by the Tender finalizing authority.

iii) On receipt of written communication of acceptance of tender, if the Tenderer fails to pay the requisite security deposit within the period specified in the written communication or backs out from the tender or withdraws his tender, the earnest money deposit shall be forfeited to the Temple account.

iv) If the contractor fails to carry out the contract, after paying the requisite deposit, then he will be liable for the excess expenditure if any incurred to complete the work as contemplated in the general conditions to the contract. v) It shall be expressly understood by the Tenderer that on receipt of written communication of acceptance of tender from the accepting authority, there emerges a valid contract between of **EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI–O3** temple , and the Tenderer, for execution of the work without and separate written agreement. Hence for this purpose, the tender documents, i.e. tender notice, tender offered by contractor, general conditions to the contract, special conditions to contract, negotiation correspondences, written communication of acceptance, negotiation correspondences written communication of acceptance and that will be the foundation of the rights of both the parties to the contract.

Provided that, it shall be open to the accepting authority, that to insist execution of any written agreement by the Tenderer, if administratively considered necessary or expedient.

6. The Tenderer shall examine closely the Tamilnadu Building Practice and also the general conditions to contract contained therein and sign the Divisional office copy of the Tamilnadu Building Practice and the addenda volume in token of such study before submitting his tender unit rates, which shall be for finished work in site. He shall also carefully study the drawing and additional specifications and all the documents connected with the contract. The Tamilnadu Building Practice and other connected documents which form part of the agreement to be entered into by the accepted Tenderer such as specifications plans descriptive specification sheet regarding materials etc., can be seen at any time between 10.00 Hours and 17.45 Hours on the office days in the office the Executive Engineer, HR&CE, padi, chennai.

7. A copy of the set of contract documents can also be had on payment of **Rs.15000/- + 2700\_(18% GST)**-each set inclusive of GST.

8. The tenders attention is directed to the requirements, for materials under the clause "Materials and workmanship" in the general conditions to contract, materials conforming to the ISI standards shall be used on the work and the Tenderer shall quote his rates accordingly.

Contractor

9. Every Tenderer is expected before quoting his rates / percentage, to inspect site of the proposed work. He should also inspect the quarries and satisfy himself about the quality and availability of materials. The best class of materials to be obtained from the quarries or other sources defined shall be used on the work. In every case the materials must comply with the relevant standard specifications, samples of materials as called for in the standard specifications or in the tender notice, or as required by the of **EXECUTIVE OFFICER, CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI–O3,** in any case, shall be submitted for the Executive Officer's approval before the supply to site of work is begun. If the contractor, after the examination of the source materials defined in the lead particulars statement, is of the opinion that the materials complying with standard or other specifications of the contract cannot be obtained in sufficient quantities from the source, he shall state clearly in his tender and state where from he intends to obtain materials subject to the approval of the Executive Officer.

The Temple administration will not however, after acceptance of a contract rate, pay any extra charges for lead or for any other reason in case the contract or is found later on to have misjudged the materials available. Attention of the contractor is directed to the standard Preliminary specifications to contract regarding payment of seigniorage, tools etc.

10. The Tenderers' particulars of attention is drawn to section and clauses in the standard general conditions to contract dealing with

1. Test, inspection and rejection of defective materials of work.

- 2. Carriage
- 3. Construction plant
- 4. Water and lighting
- 5. Cleaning up during progress and for delivery
- 6. Accidents
- 7. Delays
- 8. Particulars of payment

The contractor should closely peruse all the specification clauses which govern the rates, which he is tendering.

11. A schedule of quantities accompanies this tender notice. It shall be definitely understood that the Temple administration does not accept any responsibility on the correctness or completeness of this schedule and that this schedule is liable to alterations by omission deduction or additions at the discretion of the Executive Officer or as set forth in the conditions of contract.

Contractor

The Tenderer will however base his lumpsum tender on this schedule of quantities. He should quote specific rates for each item in the schedule and the rate should be in Rupees and in sum of five paise. The rates should be written both in words and figures and unit in works. The Tenderer should also show the total of each of and the Grand total of the whole contract and quote in the tender a lumpsum for which he will undertake to do whole work subject to the contract, such lumpsum agreeing with the total amount **of schedule 'A'**. This schedule accompanying the lumpsum tender shall be written legibly and free from erasures, over-writings, or conversions of figures, corrections where unavoidable shall be made by crossing out, initialing dating and rewriting.

12. Tenderers offering a percentage deduction from or increase on the estimate amount (except in the case of tender called for specifically under the percentage/ rate tender system) and those not submitted in proper form or in due time will be rejected. Rates or lumpsum amount for items not called for shall not be included in the tender. No alteration which is made by the Tenderer in the contract from, the conditions of contract, drawings, specifications or quantities accompanying same will be recognized, and if any such alterations are made, the tender will be void.

13. The Tenderer should workout his own rates, without reference being made to the Public Works Department current schedule of rates or the Public Works Department estimate rates which are not open for inspection by Tenderers. However, in case of tenders called for under the percentage rate tender system the Tenderers should work out his own rate, but quote his percentage rate above or below, the total estimate cost of work of the department indicated in the tender schedule.

14. The price at which and the source from which certain particular materials shall be obtained by the contractor or given at the end of the schedule accompanying the tender form. The Tenderers must accept the materials at these prices and shall quote their price for finished work accordingly. Not withstanding any subsequent change in the market value, for those materials, the charge to the contractor will remain as originally entered in the written Contract. No centage or incidental charges will be borne by The Government in connection with this supply.

15. The attention of the Tenderers is directed to the contract requirements as to the time or beginning work, the rate or progress and the dates for the completion of the whole work and its several parts. The following rates of progress and proportionate value of work done from time to time, as will be indicated by the Executive Officer. Certificates of the value of work done will be required. **Date of commencement of this programme will be the date on which the site (or premises) is handed over to the contractor.** 

22

Contractor

	Percentage of work to be completed
Period after date of commencement	(Based on the contract lumpsum amount)
First Three months	25%
Second TWo months	25%
Third Two months	25%
Fourth two months	25%
TOTAL (NINE MONTHS ONLY)	100%

16. No part of the contract shall be sub-let without written permission of the Executive Officer nor shall transfer be made by power of attorney authorsing others to receive payment of the contractor's behalf.

17. If further necessary information is required, the Executive Officer will furnish such, but it must be clearly understood that the tenders must be received in order, and according to instructions.

18. The Executive Officer or other sanctioning authority reserves the right to reject any tender or all the tenders.

19. The Tenderers who are themselves not professionally qualified shall undertake to employ the qualified technical men at their cost to look after the work. The Tenderers should state in clear terms whether they are professionally qualified or whether they undertake to employ technical men required by the department specified in the schedule below for the work. In case the selected Tenderer is professionally qualified or whether they undertake to employ technical men required by the department they undertake to employ technical men required by the department specified in the schedule below or has undertaken to employ technical men under him, he should see that one of the technically qualified men should always be at site of the work during working hours personally checking all the items of works and paying extra attention to such works as may demand special attention e.g. reinforced concrete works etc.

(The norms for the employment of Technical Assistant and penalty for non – employment of such technical Assistant etc is furnished in the format below.)

.... Contd in next page

23

# ADDITONAL CONDITIONS

# EMPLOYMENT OF TECHNICAL ASSISTANTS

	Value of contract		Minimum qualification and no. of technical persons to be
			employed.
1.	Above Rs.1,00,000/- and up to	1.	One diploma holder in Civil Engineering (Or)
	Rs.5.00 lakhs	2.	Not less than one retired junior engineer.
2.	Above Rs.5.00 lakhs and up to	1.	One B.E., (Civil) (or)
	Rs.10.00 lakhs	2.	Equivalent Degree holder (or)
		3	Not less than one retired sub Divisional officers AEE / ADE
			(or)
		4.	One Diploma holder with three years experience.
3.	Above Rs.10.00 lakhs and up to	1.	One B.E., (Civil) with 3 years experience plus one Diploma
	Rs.25.00 lakhs		holder in Civil Engineering. (or)
		2.	Equivalent Degree holder with 3 years experience plus one
			Diploma holder in Civil Engineering. (or)
		3.	Not less than one retired Sub-Divisional officer plus one
			diploma holder in Civil Engineering. (or)
		4.	Two Diploma Holders in Civil Engineering with 3 years and 5
			years experience respectively.
4.	Above Rs.25.00 lakhs and up	1.	One B.E., (Civil) with 3 years experience plus two Diploma
	to Rs.50.00 lakhs		holder in Civil Engineering. (or)
		2.	One B.E., (Civil) with 3 years experience plus two retired
			junior Engineering. (or)
		3.	Equivalent Degree holder with 3 years experience plus two
			Diploma holders in Civil Engineering / two retired junior
			engineers. (or)
		4.	One retired Sub Divisional Officer (AEE or ADE) plus two
			Diploma Holders in Civil Engineering. (or)
		.5	One retired Sub Divisional Officer (AEE or ADE) plus two
			retired Junior Engineers.

5. Above Rs. 50.00 lakhs

To be examined in individual cases depending upon the nature of work and the technical skill involve and defined in the tender notice regarding the no of qualified technical personnel to be employed by the contractor.

For this work the following technical personals are to be required.

One B.E. (Civil) or equivalent degree holder with three years experience or not less than one retired Assistant Executive Engineer, plus

One B.E. (Civil) or equivalent degree holder with three years

2 experience plus

1

З

Two diploma holder in Civil engineering with three years experience (OR) Two retired Junior Engineers

Note (1) Item 1 2,3,4,5 should be scored-out in case where not applicable to the particular work.

Note (2): A penalty of Rs.2000/- per month . for Diploma holder and for Rs.5000/- per month for degree holder, be levied in the case of default on the part of contractors in following the norms laid down above.

Note (3) : The employment of technical assistants would be based only on the value of contract, Engineers, with mechanical engineering qualification and retired form civil engineering departments are also suitable to supervise the civil engineering works because of their experience in civil engineering field.

Note(4) : In case the contractor who is professionally qualified and not in position to remain always at the site of the work and to pay extra attention to such as may demand special attention (e.g) RCC work etc., he should employee technical qualified men (as prescribed above).

Note (5): It will not be incumbent on the part of the contractors to employ Technical Assistant / Assistants when the work is kept in abeyance due to valid reasons and if during such period in the opinion of the Executive Officer, the employment of Technical Assistant / Assistants is not required for the due fulfillment of the contract.

20. A Tenderer submitting a tender in which, the tender accepting authority considers excessive and or indicative of insufficient knowledge of current prices or definite attempt at profiteering will render him liable to be debarred permanently from tendering or for such period as the tender accepting authority may decide. The tender rates should be based on the controlled price for materials if any, fixed by the Government or the reasonable price permissible for the Tenderer to charge a private purchase under the provisions of Clause 8 of Hoarding and the

Profiteering Prevention Ordinance 1943 as amended from time to time and on similar principles in regard to labour and supervision in the construction.

21. The Contractor should offer employment to ex-toody tappers as far as possible.

This paragraph should be scored out if the cost of work involved is less than (Note: This paragraph should be scored out if the cost of work involved is less than (Rs 10,000/-)

22. The contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he falls to do so, his failure will be a breach of the contract and the competent authority, may at his discretion, cancel the contract or invoke any of the penalties for breach of contract provided in the conditions of contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Act. The contractor shall during the currency of the contract ensure engagement of the apprentices in the categories mentioned below who may be assigned to him by the Director of Employment and Training / State apprenticeship Advisor, Tamilnadu, The Contractor shall train them as required under the apprentices Act 1961, and the rules made there under and shall be responsible for, all obligations of the employer under the said act including the eligibility to make payments to the apprentice as required under the said Act.

Value of contract	Category	No. to be appointed
Rs. 1.0 lakh and up to Rs.3 Lakhs	<ul> <li>Building constructor</li> </ul>	1
	✤ Brick layer	1
Above Rs. 3 Lakhs and up to Rs. 10	<ul> <li>Building constructor</li> </ul>	1
lakhs	<ul> <li>✤ Brick layer</li> </ul>	1
	Diploma holder in civil Engineering	1
Above Rs. 10 Lakhs and up to Rs.	1. Building constructor	1
50 lakhs	2. Brick layer	1
	3. B.E., (Civil) or Equivalent Degree holder	1

Unless the contractor has been exempted from engagement of apprentices by the director of employment and training / State Apprenticeship Advisor, a certificate to the effect that "the contractor had discharged his obligation under the said Act, satisfactorily", should be obtained from the Director of Employment and Training / State Apprenticeship adviser and the same should be produced by the contractor for final payment in the settlement of the contract.

23. The contractor should employ one I.T.I. trained mason for every ten masons of part thereof. In case of non – availability of ITI trained masons, the contractor should obtain the prior approval of the Executive Officer, before proceeding with the contract with other kind of masons.

24. The fact of submitting the tender implies that the Tenderers have actually inspected the site of work and have examined before tendering the nature and extent of various kinds of soils at various depths and have based their tender in such examinations by them and no future representation in this regard will be considered.

25. In case of contractor for construction of buildings either permanent of semi-permanent buildings, a sum of equivalent to 2½ % of the value work done will be retained from the Government for a period of one year reckoned from the date of completion of the work in order to enable to departmental officers to watch the effect of all seasons on the work done by the contractor. The amount so far retained with the Government will be returned only on the expiry of one year period referred to above and on execution of indemnity bonds by the contractor for a further period of four years. The contractor shall be liable to set right all defects arising our his faulty execution or sub-standard work noticed during the above five years period at his cost

26. A statement giving particulars of equipment resources that will be put at the disposal of the work under the following classification should accompany the tender.

a) Equipment (Transport of materials viz. Lorries and Carts, Concrete Mixers)

b) Organization – (i) Technical (ii) Unskilled

27. The Tender of the contractor who agrees to employ the maximum number of Ex Service Men (Nos to be specified in the Tender) will receive preferential consideration. The Tenderers are requested to report on their covering letter.

28. The Executive Officer, reserves to himself the right of allotting the different sub-works to the different contractors or to one and the same contractor as the may decide after the receipt of tender.

29. The Tenderer shall quote the rates and prices (both in figures and words) for all the items of the Works described in the Bill of Quantities **excluding GST** along with sum of the quoted tender value **excluding GST** at the end (both in figures and words).

30. No Seigniorage shall be charged where due for materials, quarried from the Public Works Department or other Government quarries. Assistance as necessary will be given to the contractor by the P.W.D., to obtain access to quarries approved by Executive Engineer. No plot rent shall be charged so for as materials stocked in the Government land during the course of construction provided such materials are removed within the month-after the works is completed.

31. Seigniorage charges due for use of private quarries and private and shall be paid by the contractor

### **II. TENDER**

28

From

То

The EXECUTIVE OFFICER,

### CHENNAI ARULMIGU EKAMBARESWARAR TEMPLE, CHENNAI-03

Sir,

Or such other sum as may be arrived at, under the clause of the Standard Preliminary Specifications, relating to payment on lumpsum basis or by final measurements at unit prices".

2. I/we have also completed the priced list of items in schedule "A" annexed (in words and figures) for which I/we agree to execute the work and receive payment on measured quantities as per the general conditions to the contract.

3. I/We do hereby distinctly and expressly declare and acknowledge that before the submission of my/our tender, I/We have carefully followed the instructions in the tender notice and have read the Tamilnadu Building Practice and the general conditions to the contract there in and the Tamilnadu Building Practice Addenda Volume; and that I/We have made such examination of the contract documents and of the plans, specifications, quantities and of the location, where the said work is to be done, and such investigation of the work required to be done and in regard to the materials required to be furnished as to enable me/us to thoroughly understand the intention of the same and the requirement, Covenants, stipulations and restrictions contained in the contract and in the said plans and specifications and distinctly agree that I /we will not hereafter make any claim or demand upon the Government based upon or arising out of any alleged misunderstanding or misconception or mistake on my/our part of the said requirements, covenants, stipulations restrictions and conditions.

Contractor

of E.M.D.

6. If my / our Tender is not accepted, this sum shall be returned to me / us on my / our applications when intimation is sent to me/us for rejection or at the expiration of ninety days from the date of this tender, whichever, is earlier. If my/our tender is accepted, the Earnest Money Deposit shall be retained by the Government as security for the due fulfillment of the contract. If upon intimation being given to me/us by the authority authorized by the Governor under Article 299 (i) of the constitution (hereinafter called the accepting authority) of acceptance of my/our tender and if I /we fail to make the additional security deposit, or to enter into required agreement (as specified in class IV of the tender notice) then I/We agree to the forfeiture of the Earnest Money Deposit. Any notice required to be served on me/us hereunder shall be sufficient served on me/us if delivered to me / us personally or forwarded, to me/us by post to (Registered or ordinary) or left at the mail address given herein. Such notice shall, if sent by post be deemed to have been served, on me/us at the time when in due course of post, it would be delivered at the address to which it is sent.

7. I/We fully understand that on receipt of communication of acceptance of tender, from the accepting authority there emerges a valid contract between me/us and the Governor of Tamilnadu and the tender documents i.e., tender notice, tender with schedules. General conditions to the contract and special conditions of the tender, negotiation letter, communication of acceptance to tender, shall constitute the contract for this purpose and be the foundation of rights of both the parties, as defined in clauses (iv) of tender notice, provided that, it shall be open to the accepting, authority to insist on execution of any written agreement by Tenderer, if administratively considered necessary or expedient.

Contractor

8. I/We have also signed the copy of the Tamilnadu Building Practice and National Building Code and Addenda volume thereto, maintained in the office of the Superintending Engineer PWD Buildings Construction and Maintenance Circle, CHENNAI in acknowledgement of being bound by all conditions of the clauses of the General conditions to the contract and all specifications for items of work described by a specification number in Schedule "A".

10 (i). The term " Executive Officer " in the said conditions shall mean the Hindu Religious Endowments Department officers in charge of the Temple, having jurisdiction for the time being over the work, who shall be competent to exercise, all the powers and privileges reserved herein in favour of the Temple Administration with the previous sanction of or subject to ratification by the competent authorities in case where such sanction or ratification may be necessary and who has been duly authorized under Article 299(1) of the constitution.

10 (ii). In the event of work, if transferred to any other Region or Temple and the Executive Officer who is in-charge of the Region / Temple having jurisdiction over the work, shall be competent to exercise all the powers and privileges reserved in favour of the Government

11. I / We agree that the time shall be considered as the essence of this contract and to commence the work, as soon as this contract is accepted by the competent authority as defined by the Tamilnadu Public Work Department Code and the site (or premises) is handed over to me/us as provided for in the said conditions and agree to complete the work within 9 (NINE) months from the date of such handing over of the site (or premises) and to show progress as defined in the tabular statement "Rate of progress" subject nevertheless to the provision for extension of time contained in clause 56 of the General conditions to the contract appended to Tamilnadu building practice.

12. I /We agree that upon the terms and conditions of this contract, being fulfilled and performed to the satisfaction of Executive Engineer, the Security deposited by me/us as herein before cited or such portion thereof, as I/We may be entitled to, under the said conditions be paid back to me/us as provided in clause 64 of the General conditions to the contract.

13. I am / We are professionally qualified and my/our qualifications are as follows:

Contractor

I/We in pursuance of clause 18 of tender notice under take to employ the following technical staff for supervising the work and will see that one of them is always at site during working hours personally checking all items of works and paying extra attention to such works as may require (e.g) reinforced cement concrete works.

SI.No.	Name of technical staff proposed to	Qualification	Experience
	be employed		
1.			
2.			
3.			
4.			

14. I /We agree that the Arbitrator for fulfilling the duties set forth in the Arbitration clause of the General conditions to the contract shall be

- EXECUTIVE OFFICER, H.R. & C.E. Department, other than CHENNAI Region, in case of value of claim does not exceed Rs.50,000/-
- 2. In case of the value of the claim exceeding Rs.50.000/-and the matter will be dealt as per Arbitration proceedings being governed by the Arbitration and Conciliation (Amendment) Act 2015.

G.O.Ms. No. 1868, M.C. dated 6.9.1984 communicated in Chief Engineer (Buildings)'s circular endorsement No. CTO/A/155716/ 84 dated 24.9.1984.

Signature of the witness in

full and address with name

in Block letters

# Schedule of rates and approximate quantities

- 1. The quantities here given are those upon which the lumpsum tender cost of the work is based but they are subject to alterations, omissions, deductions or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done. The unit rates noted below are the governing payment for extra or deductions for omissions according to the conditions of the contract as set forth in the general conditions of contract of TNBP and other condition conditions (or) specifications of this contract.
- 2. it is to be expressly understood that the measured work is to be taken that (Not withstanding any custom or practice to the contrary according to the actual quantities when in place and finished according to the drawings or as may be ordered from time to time by the Executive Engineer and cost calculated by measurement or weight at the respective prices, without any additional charge for any necessary and contingent works connected therewith. The rates quoted are for works in site and complete in every respect.

Item	Probable quantity.	Class and	TNBP No or other	Rate	Unit	Amount
No.	(In figures and	description of	special specification no	(In figures	(In figures	(figures)
	words)	work	if any	and words)	and words)	Rs.
						Р
		Vic	le separate schedule attacl	hed		

# SCHEDULE. B.

# LIST OF DRAWINGS SCHEDULE.

Name of work: "Construction of commercial building at temple land bearing Door No 5, Ekambareswarar Agraharam Street, Chennai –03".

SI. Drawings No. **Description of Drawing** No. 1 1 PROPOSED COMMERCIAL BUILDING 2 2 **BUILDING - COLUMNS & FOOTING LAYOUT** з 3 FLOOR PLAN 4 4 SECTIONAL ELEVATION

List of specifications for the various items of works supplementing those described in Schedule A by standard specification numbers

1. The contractor shall employ the following technical staff for supervising the work and shall see that one of them always at site during working hours personally checking all items of work and paying extra attention to such works as may demand special attentions e.g. Reinforced cement concrete works etc.

2. Name of the members of the technical	Qualification			
staff to be employed				
	1.One B.E. (Civil) or equivalent degree holder with			
	three years experience or not less than one retired			
	Assistant Executive Engineer, plus			
	2. One B.E. (Civil) or equivalent degree holder with three years experience plus			
	3. Two diploma holder in Civil engineering with three years experience (OR) Two retired Junior Engineers			

Note 1 : In case the contractor Is himself professionally qualified the above specification

should be suitably altered and In case In which the contractor selected has not given In undertaking to employ qualified men it should be scored out.

2. A penalty of Rs. 2,000/- per month for Diploma Holder and Rs. 5,000/- p.m. for Degree holder be levied in case of default on the part of the contractors as per norms fixed by the Government for employment of Technical Assistant.

3. The employment of Technical Assistant should be based only on the value of contract Engineers with Mechanical Engineering qualification and retired from Civil Engineering Departments are also suitable to supervise the civil Engineering works because of their experience in Civil Engineering Field.

4. In case of the contractor who is professionally qualified is not in a position to remain always at the site of the work during hours personally checking all items of the work and paying extra attention to work as may demand special attention (eg) R.C.C. work etc. he should employ technically qualified men as prescribed for the works.

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

33

5. A movement register should be maintained for Technical Assistants employed by the Contractor or for the technically qualified Contractor. The Technical Assistants or Technically qualified contractors should note the arrival and the departure timings every day along with-their initials. Such register should be produced during inspection of the Inspecting Officer.

6. It will not be incumbent on the part of the contractor to employ Technical Assistants when the work is kept in abeyance due to valid reasons and if during such period in the opinion of

SI.	Designation	Name	Educational	Under regular	Total	Salary	Remarks
No.			Qualification	employment	Span of	being	
				with tenderer	experien	paid	
				since	се		
1.	Project Manager – B.E.						
	Civil (with atleast 3						
	years experience. (OR)						
	not less than one retired						
	Assistant Executive						
	Engineer – 1No.						
2.	Site Engineer.						
	B.E. (Civil) or equivalent						
	degree holder with three						
	years experience -1 No						
3	Diploma holder in Civil						
	engineering with three						
	years experience (OR)						
	Retired Junior Engineers –						
	2 Nos.						

the Executive Officer, the employment of Technical Assistants is not required for the due fulfillment of the contract.

7. Without prejudice to the generality of the above clause the contractor shall during the currency of the contract, when called upon by the Executive Officer or Engineer–in–charge engage and also ensure engagement by the Sub Contractors and others employed by the contractor in connection with the work such number of apprentices in the category mentioned, below and for such period, as may be required by the Executive Officer Engineer– in–charge. The Contractor shall train them as required under the Apprentices Act 1961 and the rules made thereunder and shall be responsible for all obligations of the employer under the said act including the liability to make payments to apprentice as required under that said act.

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

34

#### **II.TENDER**

- 1. Tenders with tampered seals will not be accepted.
- 2. Tenders in which the rates are not written in words will generally be rejected. In case of any discrepancy while expressing rates in words, the rate whichever is advantageous to Temple administration will only be taken into account. Tenders containing overwriting, corrections which are not attested by the tenderers will be liable for rejection.
- 3. The contractor should satisfy himself about the availability of the various materials at the quarries specified in the tender schedule for the work before tendering. In case, the contractor feels any difficulty in procuring the material from the stipulated quarries he should make a special mention of the fact with details of the quarry / Quarries from which he proposes to bring the required materials for the work in the covering letter to accompany his tender. Any claim for payment of extra cost on account of increase in the lead for materials at the later stage will not be accepted.
- 4. In case it is found by the Departmental Officers that the contractor has brought any of the required materials from a quarry with lesser lead than that is specified. in the schedule, proportionate deductions will be made from the contractors rate of payment for the finished work for the respective item / items of work.
- 5. A deduction of 2 % will be made towards income Tax in every payment made to the contractor.
- 6. The successful tenderer should convert the E.M.D. already deposited and additional security deposit if any required for the fulfillment of contract into National Savings Certificates / Accounts pledged in favour of the Executive Officer concerned Bank Guarantee for the Security deposit may be furnished vide G.O.No.283/PW(G2)Dept./dated 21.05.1999.
- Irrevocable Bank Guarantee shall be accepted towards security deposit Retention money only G.O.Ms.No.283/PW(G2)Dept./Dated 21.05.1999.
- 8. <u>Percentage Tender Conditions :</u>

On evaluation of Tender if it is found that if the overall quoted amount of the, Tender is less than 5 to 15% of the value put to Tender, the contractor shall pay an additional security at 2% of the estimated value. If the tender discount exceeds 15% to 20% the contractor shall pay an additional, Security deposit of 50% of the difference between the quoted amount and estimate amount Failure to furnish the Additional Security Deposit within 15 days from the date of receipt of Acceptance order and

Contractor

execute the Agreement shall entail cancellation of award of contract and forfeiture of E.M.D. furnished,"

- 9. An irrevocable Bank Guarantee will be accepted towards Security Deposit in the prescribed form. An affidavit in prescribed form is to be taken up the contractor on a non-judicial stamp paper before a Judicial Magistrate.
- 10. In the case of contracts for the Construction of buildings either permanent or semi permanent buildings, a sum equivalent to 2 1/2% (Two and half percent) of the value of work done will be retained with the Temple administration for a period of one year reckoned from the date of completion of the work in order to enable the departmental officers the watch the effect of all seasons on the work done by the contractor. The amount so retained with the Temple administration will be refunded only on expiry of one year period referred to above and on execution of Indemnity bond by the contractor for a further period of four years. Otherwise on irrevocable Bank Guarantee and affidavit in the prescribed form will be accepted in lieu of retention money.

# **EXECUTION OF WORK**

1	The contractor shall make his own arrangements for clean and fresh water and shall meet all charges therefore. The special attention of the contractor is drawn to clause 36 of General Conditions of Contract regarding water and lighting
2	The rates specified in schedule for the different items of works are for the finished work.
3	All duties, taxes, and other levies <b>except GST</b> , payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder
4	All minor baling and pumping incidental on the work shall be borne by the contractor, where heavy pumping is required the baling will be done departmentally. If the contractor is asked to do, the charges will be paid as per actual plus 10%. Executive Officer in charge of the work will be the final authority to decide whether pumping is minor or heavy
5	The payment for Earthwork will be made for embankment excluding the quantity of pebbles, boulders and other such materials which shall not normally be used along with the earth for formation of bund

6	The cement concrete for reinforced cement concrete works shall be machine mixed		
7	The lime mortar shall be ground in mortar mill as per T.N.B.P		
8	More than 90 cm height of concrete should not be laid in one day. At the place where the concrete is stopped, it should end in the form of steps so as to facilitate receiving of the next length of concrete. Once a height of 90 cm of of concrete is laid, it should be cured for three days before further concrete is laid.		
9	The teakwood or country wood (Karimarudhu or Pillaimarudu) shall be of best quality and shall be subject to inspection and approval by Executive Engineer before use on the work		
10	PAINTING : Paint used for the work shall be of approved brand and colour		
11	Plastering : All external corners, "TEE" beam edges and doors and windows opening etc, shall be finished truly vertical or horizontal as the case may be. The rate for plastering shall include the cost of finishing. No separate extra for finishing the corners edges of beams etc. will be paid		
12	The planks for form work and centering for reinforced cement concrete works shall be well seasoned timber approved by the Executive Officer according to clause 8 of T.N.B.P. No. 30. They must be made smooth and perfectly level at top so as to give smooth and even finish to the reinforced cement concrete ceilings. Alternatively, the contractor may use steel sheets over wooden frames provided the required finish to the underside of the slab is obtained. Mango Planks shall not be used under any circumstances. Centering form works shall be provided to the extent and area ordered by the Executive Officer during the execution		
13	The arrangements of steel rods for reinforcement for reinforced concrete works shall be in accordance with the working drawing supplied		
14	The Executive Officer will be at liberty to carryout any portion of the work at any time either departmentally or through any other agency in the interest of this Temple administration, without assigning any reasons therefore to the contractor who is actually doing the work. The contractor is not entitled for any comprehension on account of the same. The contract will be only subject to this condition.		
15	In the event of the work being transferred to any of the Regional / Temple, the Executive Officer who is in charge of the Regional / Temple having jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favour of the Temple administration.		
16	Earth work : Each and every borrow bit will be individually marked by the Temple Engineer and in urgent cases by the Masteries in charge of the work subject to the approval of the Section Officer. Earth should be removed only from the places marked and to the depth ordered by the above officer		

Contractor

(Sd ) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

37

	(a The contractor should locate pits for earth work in open places away from the old pits.	
17	(b) No excavation shall be made inside of the tank bund nearer to the toe of the slope than	
	twice the height of the bund and the point not on the outside of the bund than three times in the height of the bund, unless specifically approved by the Executive Officer	
18	The contractor should not enter any private lands for removal of earth there from without the prior written consent of the landowners. If he does any unauthorized activity, the contractor alone will be held fully responsible for consequences arising there from.	
19	No borrow pit should be less than 45 cm deep. Gap of 90 cm should be allowed between any two consecutive pits. When the pits are excavated for more than 2m in width longitudinal thandus should be provided	
20	The contractor should not put in borrow pits for removal of earth on a haphazard/fashion and they should be putin the place and in such a manner as, may be directed by the officers in charge of the work. If any such unauthorized pits are put, the contractor will have to fill up the pits at his own cost	
21	A deduction of 20% and 10% will be made in the quantity of earth work measured for thandus and muttus respectively and the amount on account of this deduction will be paid after satisfactory removal of Thandus and muttus. If thandus and muttus are not removed within a month from the date of check measurement by the sub- divisional officer OR Executive Officer or within the period fixed at the discretion of the Executive Officer, the 20% and 10% deductions will be final and will not be revoked	
22	The contractor shall arrange for sectioning of the bank immediately after the work in each reach is completed. The final sectioning must be completed within 15 days after the completion of the work in the entire reach	
23	<ul> <li>Payment for earthwork for New Banks will be made as follows         <ul> <li>(i) Quantity as per pit</li> <li>(ii) Quantity of New bank after whichever is lesser consolidation based on level</li> </ul> </li> </ul>	

# III SUPPLY OF MATERIALS

1	The contractor's rate for the different items of work involving the use of cement are inclusive of the costof Cement	
2	The cement required for the work will be supplied by the contractor himself.	
3	The contractor should make his own arrangement at his own cost to take delivery of the cement from the dealer and to convey the same to his store shed at site of work. The stock of cement with contractors should be accessible to the Departmental Officers for verification at any time.	

4	To be procured from authorized stockiest and dealers with details of printing in the Cement bag as approved by ISI (Pazzolona Cement printed in red colour and other Cement bags including OPC in black colour)	
5	All Cement quantity should be supplied in paper bags only at site of work	
6	Test certificate to be obtained from Government institutions and Quasi Government institutions only by mentioning the name of work & period of contract and should not be from private institutions	
7	The minimum content of cement is to be ensured in use for works as specified in IS : 450–1978 Table – 19.	

# 8a. TABLE - PHYSICAL CHARACTERISTIC REQUIREMENTS OF CEMENT (OPC)

SI.	Characteristics	Requirements		
		33 Grade IS:	43 Grade IS:	53 Grade IS :
No.		269-1989	8112–1989	12269–1989
1.	Minimum compressive strength in			
	N/ Sq. mm			
	3 days	16	23	27
	7 days	22	33	37
	28 days	33	43	53
2.	Fineness (minimum) (Sq. m/Kg)	225	225	225
З.	Setting Time (minutes)			
	Initial – (minimum)	30	30	30
	Final - (maximum)	600	600	600
4.	Soundness, Expansion			
	Le Chatleier – (maximum) m m	10	10	10
	Autoclave Test (maximum) %	0.80	0.80	0.80

If the Tender of the successful tenderer is seriously unbalance in relation to the Engineers estimate of the real cost of work to be performed under the contract, this Temple Administration may require that the amount of performance security be increased at the expense of the successful tenderer to

39

a level sufficient to protect this Temple Administration's interest against financial loss in the event

of subsequent default tenderer under the contract.

# 1. b. Cement Conditions :

Procurement of cement for this work should have following specifications.

1	The contractor shall procure cement required for the works only from reputed cement factories
	(Main producer or their authorized agents, manufacturing cement at I.S.I. standard) acceptable to the
	Engineer-in-charge. The contractor shall be required to furnish to the engineer - in- charge bills of
	payment and test certificates issued by the manufactures or their authorized agents to auth-
	enticate procurement of quality cement from the approved cement factory. The contractor shall
	make his own arrangements for safe haulage and adequate storage of cement
2	The contractor shall procure M43 Grade Portland Cement in standard packing of 50 kg per bag
	from the authorized manufactures. The contractor shall make necessary arrangements at his
	own cost to the satisfaction of Engineer-in-charge for actual weighment of random sample
	from the available stock and shall conform with the specification laid down by the Indian
	standards institution or other standard foreign in situation as the case may be cement shall be
	got tested for all the tests as directed by the Engineer-in-charge at least one month on
	advance before the use of cement bags brought and kept on site godown
3	The employer will furnish air retraining agents and admixtures required to the contractor free of cost
	at the employer stores. The use of such admixtures and agents shall be made as per the
	instructions of the Engineer-in-charge. The cost of cartage / storage handling batching mixing
	shall be borne by the tendered for concrete.
4	The cement shall be brought at site in bulk of approximately 50 Tonnes or as decided by the
	Engineer-in-Charge for large works
5	The Cement godown of the capacity to store a minimum of 1000 bags of cement shall be
	constructed by the contractor at site of work, for which no extra payment shall be made. The
6	contractor shall facilitate inspection of the cement godown by the Engineer-in-Charge at any time The contractor should store the cement of 60 days requirement at least one in advance to ensure
0	
	the quality of cement brought to site and shall not remove the same without the written permission
	of engineer-in-charge
7	The contractor shall forth with remove from the works area and cement that the Engineer-in-
	charge may disallow for use on account of failure to met with required quality and standard
1	

8	The contractor will have to construct sheds for storing cement having capacity not less than the
	cement required for 90 days use at approved locations. The Engineer-in-Charge of the
	representative shall have free access to such store at all times
9	The contractor shall further at all times satisfy the Engineer-in-charge on demand by production of
	records and test books or by submission of returns and other proofs as directed that the cement is
	being used as tested and approved by Engineer-in-charge for the purpose and the contractor shall
	at all times, keeps his record up to so as to enable the Engineer-in-Charge to apply such checks as
	the may desire
10	Cement which has been unduly long in storage with the contractor or alternatively has deteriorated
	due to inadequate storage and thus become until for use on the works will be rejected by the
	Department and no claim will be entertained. The contractor shall forth with remove from the work
	area any cement the Engineer-in-charge may disallow for use of work and replace by cement
	complying with the relevant Indian standards.

# STEEL :

1	Steel required for the work will be supplied by the Contractor himself.
2	No separate charges will be paid to the contractor for straightening of mild steel rods. The contractor
	shall make his own arrangements for cutting to sizes, bindings and tying grills etc. Mild steel rods,
	should be cut and placed as reinforcements with proper care according to the available rods at site so
	as to ensure minimum possible wastage.
3	To be procured from authorized dealers and test certificate for strength as well as for unit weight to
	be produced before use in order to ascertain the size of rod and quantum of Steel actually used in the
	work
4	Excessively rusted Steel rods should be rejected
5	To be delivered at site of work and to be under the custody of contractor only
6	Use of Steel rods shall confirm to the structural designs approved for the work
7	Steel supplied shall confirm to standard specifications specified in Table : 16 of
	IS :456-1978 as detailed below
(a)	Mild Steel – Grade I of IS : 432/Part 1/1966
(b)	HYSD bars – IS : 1786 – 1985/
(c)	

Contractor

Cold worked – IS : 786–1979 (Grade Fe 415
Steel manufactured from the waste Steel through the process of re-rolling shall be rejected
since guarantee for the strength and quality is not certified by the authorized dealer or by the
manufacturers
The contractor shall provide mild steel (MS) reinforcement basis, High yield strength deformed (HYSD)
bars, rods and structural steel etc., required for the works only from the main and secondary
producers manufacturing steel or other authorized agents to the prescribed specifications of Bureau of
Indian standards requirements and licensed to affix I.S.I. test certificate issued by the Govt. approved
laboratory certification marks and acceptable to the Engineer - in - Charges, necessary I.S.I. test
certificate are to be produced to Engineer-in-charge before use on works

The diameter and weight of steel should be as follows :-

SI.No.	Diameter of Rod	Sectional weight in kilogram per running	
		meter both for plain and HYSD STEEL	
1)	6 Milli meters	0.222	
2)	8 Milli metres	0.395	
3)	10 Milli metres	0.617	
4)	12 Milli metres	0.888	
5)	14 Milli metres	1.208	
6)	16 Milli metres	1.578	
7)	20 Milli metres	2.466	
8)	25 Milli metres	3.853	

Note if any rods other those specified above are used the weight shall be as per standard steel tables.

#### **CENTERING WORKS**

1	Payments for centering works for all R.C.C. items shall be made only after concrete is laid, even
	though separate rate is called for, for centering work in the Schedule
2	The contractor will be held responsible for the proper safe custody of all the Departmental materials
	which are handed over to the contractor until they are finally used on the work or taken over by the
	Department
3	The shed for storing materials should be put up by the contractor at his own cost

### V. Special Conditions for Earthwork Excavation in Hard Rock Requiring Blasting

- In the case of earthwork excavation in hard rock requiring blasting the tenderer should observe thefollowing conditions.
- (a) The blasted rock shall be compactly stacked for measurement. The net quantity of blasted rock shall be arrived at by allowing a deduction of 40% for voids and compared with the pre-measured quantity and only the lesser of the Two shall be paid.
- (b) Where the rock other than hard rock and hard rock are mixed upon ground, the Two kinds of rocks shall be stacked separately for measurement. The net measurement of two kinds of rock shallbe compared with the pre-measured quantity and only the lesser of the Two shall be paid for. If the total of net measurement of the two kinds of rock exceeds (or) falls short of the measurements of mixture, the volume of mixture proposed to be paid shall be apportioned in the proportion of the net actual measurements of stacks of the Two kinds of rocks.
  - Note : i) 40% deduction for voids shall be adopted for compact and proper stacking but such percentage of deduction shall be increased for loose (or) improper stacks
    - ii) The blasted rock material, stacked, measured and paid for shall become the property of the department.
    - Iii) I.S. Code No. 1200 (Part I) 1969 method of measurement of building Sand in Civil Engineering of work. Part I "Earthwork" may be referred as and when necessary

#### I. MOSAIC FLOORING

 Cement concrete flooring tiles shall be manufactured from a mixed cement natural aggregates and colouring materials where required by pressure process. During manufacture the tiles shall be subjected to a pressure of not less than 140 kg. per. sqm. (or) 2000 lbs. sq.inch)

Contractor

- Proportion of cement to aggregate in backing of the tiles shall be not less than 1:5 byweight.
- 3. On removal from mould, the tile shall be kept in moist condition continuously for at least 7 days and subsequently if necessary kept in moist for such a longer period that would ensure their conformity, to the requirements of Traverse strength, Resistance to wear and tear absorption and would minimize shrinkage and cracking. Tiles shall be stored under cover.
- 4. TOLERANCE : Tolerance on length and breadth shall be plus or minus one millimeter.

# Thickness of Wearing Layers

Class of tiles	<i>Minimum thickness</i> of <i>wearing layer</i> (mm)
Plain cement and plain coloured tiles for general duty	3
Plain cement and plain coloured tiles for heavy duty	6
(Mosaic) terrace tiles with chips of size varying from the	5
smallest upto 6mm (1/4")	
(Mosaic) terrace tiles with chips of size varying from the	
smallest upto 12 mm (1/2")	5
	-

5. Colours and Appearance: The colour and texture of the wearing layer shall be uniform throughout its thickness.

6.When specifying the tiles, the contractor should specifically indicate whether the chips to be used are from the smallest units 6mm from smallest upto 12mm or from the smallest upto 200mm size. The officers of the department shall also specify size of chips by referring the approximate photograph given in figure 4 to figures 6 in Indian Standard 1237/1959.

## Test inspection and rejection of defective materials and works

1) The contractor shall provide proper facilities at all for the testing of materials and inspection of the work by the Executive Officer, and the Executive Officer shall accordingly also have access at all times to the places of storage of manufacture where materials are being made for use under the contract to determine that manufacture is proceeding in accordance with the drawings and specifications.

Contractor

2) The contractor shall, upon demand, also forward for the Executive Officer inspection test certificate supplied by the vendors, when he is purchasing consignments of cement, steel and other materials in respect of which certificates are usually available.

3) The Executive Officer shall have power to reject at any stage, any work which be considered to be defective in quality of material or workmanship and be shall not be debarred from rejecting wrought materials by reasons of his having previously passed them in an unworked conditions. Any portion of the work or materials rejected or pronounced to be inferior to or not in accordance with the drawings and specifications, shall be taken down and removed from the work site at the contractor's expense, within 24 hours after written instruction to that effect have been given by the Executive Officer. Replacement shall at once be made in accordance with the specifications and drawings at the contractors' expense.

4) In case of default on the part of the contractor to carry out such orders the Executive Officer shall have power to employ and pay other reasons to carry out the orders at the contractor's risk and all expenses consequent thereon and incidental there to shall be borne by the contractor.

5) In lieu of rejecting work **not** done in accordance with the contractor, the Executive Officer may allow such work to remain and in that case shall make such allowance for the difference in value, as in his opinion may be reasonable.

6) Works opened for inspection. The contractor shall, at the request of the Executive Officer, within such time as the Executive Officer shall **name**, open for inspection any work covered up and should the contractor refuse or neglect to comply with such a request the Executive Officer may employ other workmen to open up the same.

If the said work has been covered up in contravention of the Executive Officer or his authorized representative Engineer's instructions or if on being opened up, it be found not in accordance with drawings and specifications or the written instructions of the Executive Officer the expenses of opening it and covering it up again whether done by or recovered from the contractor. If the work has not been covered up in contravention of such instructions or if on being opened up it be found to be in accordance with the drawings and specifications or the written instructions of the Executive Officer, the expenses aforesaid shall be borne by this Temple administration and shall be added to the contract sum, provided always that in the case of foundations, or any other urgent works so opened up and requiring immediate attention the Executive Officer shall, within reasonable time after the receipt of a notice from the contractor that the work has been opened, make or cause the inspection there of to be made, and at the expiration of such time if such inspection shall not have been made, the contractor may cover up the same and shall not be required to open it up again for inspection except at the expense of this Temple administration.

#### II) Defects, shrinkages, etc, after completion

1) Any defects, shrinkage or other faults which may appear within six months from the completion of the works arising, in the opinion of the Executive Officer from faulty materials or workmanship not in accordance with the drawings and specification or the instructions of the Executive Officer shall, upon the directions in writing of the Executive Officer and within such reasonable time as shall be specified them, be amended and made good by the contractor at his own cost, unless the Executive Officer shall decide

Contractor

that the contractor ought to be paid for the same at the rates agreed on such reduced or other rates, as the Executive Officer may fix and incase of default, the Executive Officer r may employ and pay other persons to amend and make good such defects, shrinkage or other faults or damage, and all expenses consequent thereon and incidental thereto shall be borne by the contractor.

2) The shrinkage period of six months referred to in main clause 26.1 above, will be five years in respect of all contracts for construction of original buildings either semi permanent or permanent to ensure structural stability of the building. (G.O.Ms. No. 181 PWD 28.1.86)

3) Provided that in the event of Government taking over portions of the works as and when they are completed the liability of the contractor under this clause shall extend to a period of six months (or five years as the case may be) from the date of final taking over the of the work irrespective of the actual dates on which portion of the works were over.

## 3. Executive Officer's Decision

1) To prevent disputes and litigation, it shall be accepted as an inseparable part of the contract that in matters regarding materials workmanship, removal of improper work, interpretation of the contact drawings and contract specifications, mode of procedure and the carrying out of the work, the decision of the Executive Officer shall be final and binding on the contractor and in any technical question which may arise touching the contract, the Executive Officer decision shall be final and conclusive.

#### 4. Dismissal of workmen

1) The contractor shall employ in and about the execution of the works only such persons as are careful, skilled and experienced in their several trades and callings and the Executive Officer shall be at liberty to object to and request the . Contractor to remove from the works any person employed by the contractor in or about the execution of the works who in the opinion of the Executive Officer misconducts himself or incompetent or negligent in the proper performance of his duties and such persons shall not be again employed upon the works without the permission of the Executive Engineer.

### SPECIAL CONDITION FOR ERADICATION OF CHILD LABOUR

G.O.(MS) No.53 Labour and Employment (V II) Department/Dated 12.5.03

The work contract assigned to the Contractor's shall be cancelled if they engage Child Labour in executing works and such Contractors should be, black listed for three years

#### PART -IV

#### SPECIAL CONDITIONS

- 1. Clean fresh water and river sand shall be used in all cases.
- Only clean fresh water shall be used on the work. The contractor shall make his own arrangements for water and shall meet all charges therefore. The special attention of the contractor is drawn to clause 36 General conditions of contract regarding water and lighting.
- 3. The broken stone for concrete and RCC works should be granted and passed by the Executive Engineer.

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

46

Contractor

4. All iron work or steel work of every kind except steel rods that are to be embedded in cement concrete shall immediately arrive at the site and properly scrapped with wire brushed and given a priming coat of approved lead painting without claiming for extra.

5. HOLDFASTS :

Iron holdfasts shall be fixed in the walls using cement mortar 1:3 for that portion of fixing at the time of construction of walls. It should be mixed with cement concrete 1:3:6 using 20mm gauge broken granite stone jelly for proper anchorage and binding. No separate rate for such pockets of concrete filling at holdfast points and for using C.M. 1:3 for that portion, will be allowed and this will be measured as masonry along with adjacent masonry.

6. WOOD :

Teakwood shall be best Indian Teakwood only and shall be subject to inspection and approval by the Executive Officer or his authorized Engineer before use on the work. Country wood where specified shall be Karumarudu, Pillamarudu, Kongu, Veteak for scantling and Manja Kadambu, Aiyini for planks as may be specified and approved by the Executive Officer or his authorized Engineer

- 7. Holes and charges of electric wiring, water supply and drainage etc., shall be provided as directed during progress of work without any claiming extra.
- 8. The work will be carried out with the least hindrance to the adjoining building and officers and the contractor will be responsible for any damages, caused to the existing fixtures electric fittings etc., in the course of execution and the contractors shall make good of damage without claiming extra.
- 9. T. BEAMS :

In the of 'T' Beams and ELL beams the quantity given in the schedule is the quantity of the rib portion only. The top flange portion will be always measured with the general slab portion and paid for at the slab portion only. For all RCC works the rate shall include the treatment of bearing as per specification No. 30 of TNBP.

# 10. CONCRETE WORKS :

All exposed concrete surface will be required to be finished by cement plaster as per specification No. 30E (a) of TNBP.

#### 11. PLASTERING CONCRETE :

All corners shall be finished sharp using C.M. 13 not exceeding 3 inch width on each side of the corner. So also the edges of beams of door and windows opening soffits, shall be finished sharp using rich mortar and finished truly vertical or horizontal as the case may be. The unit rate quoted by the contractor for plastering shall be inclusive of the cost of finishing as above and so separate claim for extra rate will not be entertained. However, the cement utilized for the work will be taken into consideration in the adequacy statement for issued of departmental cement to the contractor.

12. WORKS IN DIFFERENT FLOORS:

47

Contractor

If separate rate is not called for, for execution of similar items of work in different floors, then, single rate quoted will alone be entertained uniformly for execution of such items of works in different floors. No claim for extra rate will be entertained under any circumstances.

- 13. The Executive Officer, reserves the right to split up the work and entrust the main work, internal water supply and sanitary arrangements to different contractors.
- 14. The projection if any to the masonry will be measured under the relevant items and no extra will be paid for finishing the same.

15. (i) The works executed by the contractor under the contract shall be maintained at contractors' risk until the work taken over by the Executive Officer of this temple. The Contractor shall accordingly arrange his own insurance against fire, flood, volcanic eruption, earthquake, other convulsions of nature and other natural calamities, risks arising out of acts of God. During such periods and that the Government shall not be liable for any loss or damage occasioned by or arising out any such acts of God.

Payments for centering works for all RCC items shall be made only after the concrete is laid, even though separate rate is called for, for centering works in the schedule.

15. Concrete For R.C.C. works

All cement concrete for RCC works shall be machine mixed and vibrated.

#### Additional specifications:

- 1. The arrangements of M.S. Rods for reinforcement for such RCC works shall be in accordance with departmental drawing supplied.
- 2. The planks for forms and centering for RCC works shall be of well seasoned timber approved by the J.C / E.O or his authorized Engineer according to clause 8 of TNBP 30. They must be made smooth and even perfectly level to top so as to give smooth and even finish to the RCC ceilings alternatively the contractor should use steel sheets over wooden firms centering and form work shall be provided to the extent and as ordered by the J.C / E.O or his authorized Engineer during the execution
- 3. All time mortar shall be ground mixed in mortar and will be as per T.N.B.P.
- 4. M.S. steel rods should be cut and placed as reinforcement with proper care according to the available rods at site so as to ensure the minimum possible wastage.
- 5. Ordinary the contractor shall be responsible for the collection of all materials required for the work.
- 6. The required G.I. Pipes if available will be supplied free of cost of site of work. The Scurplus G.I. Pipes if any will be returned in good condition to the department failing which double the cost at market rate plus centage charges will be recovered form the contractor.

48

#### **ADDITIONAL CONDITIONS : 1**

- Paints of approved quality are to be procured by the contractor himself and used on the work. The paint tin must be opened in the presence of Section officer/ Sub Divisional Officer and then only used on the work after getting the approval of the concerned officers.
- 2. The contractor shall be responsible for the safe custody and storage of materials under any conditions of the places where the works are approved by the Executive Officer or his authorized Engineer.
- 3. The contractor shall form his own approach road to the works site for which no extra will be due to him. On completion of work, the contractor shall not be permitted to remove the materials, laid for formation of road if the contractor, is allowed to used the existing road he shall maintain them in good condition at his own cost, throughout the period of the contract.
- 4. Any surplus materials remaining at the site will not be generally taken over by the department whether before or after the completion or determination of contract. Such materials either which were originally produced by the contractor (or) were issued to them by the department and charged to their accounts are the property of the contractors and can however be taken over by the department if required for use on other which are in progress only the special arrangements and at the prevailing market rates viz., the rates at which the article or articles of a similar description can be procured at a given time from public market.
- 5. If the materials were originally used by the departments the price allowed to the contractor on requisition shall not exceed the amount charged to the contractor excluding the cost of storage charges if any.
- The surplus materials which were originally issued to the contractor by the department for use in the work shall not be removed from the site of work without getting the written permission of the J.C / E.O or his authorized Engineer.
- 7. If night work is required to fulfil the agreed rates of progress all arrangements shall be made by the contractors inclusive of lighting without any claim for extra rates.
- 8. The contractor shall not employ the labour below the age of 18 years and shall also note that be must offer employment to Ex-servicemen ex toddy tappers and unemployed agricultural labourers as far as possible.
- 9. Any of the item in the schedule may be omitted or radically altered. No variation in rate shall become payable to contractor on account of such omissions (or) variation in quantities.
- 10. References to TNBP in the schedule of quantities referred to printed. 1985 and 1988 and addenda and corrigenda issued thereafter.
- 11. The construction of building will be deemed to be completed only if any items of works including finishing items of works contemplated therein are executed.
- 12. The contractor shall abide the contractor's labour regulation or the P.W., Framed by the Tamilnadu Government.
- 13. In respect of all contract with contract value exceeding Rs.5,000/- income tax 2% of the gross of amount irrespective of the bill amount payable to the contractor will be recovered at source.
- 14. The GST clearance certificate in Form 3b should be furnished before the finalization of contract.

Contractor

#### 15. a). E.M.D:

The acceptance of E.M.D. in various approved forms is subject to the specific condition that the successful Tenderer should pay the security deposit (including E.M.D.) in the form of small savings Scrips duly pledged in favour of the Executive Engineer concerned in lieu of other mode of payment made for E.M.D.

(b) Security deposit:

In case of contractors for building works the security deposit (i.e.2%) of the value of contract minus the E.M.D. already remitted is to be produced in the shape of small saving Scrips, deposits, accounts duly, pledged to Executive Engineer, PWD of the Division concerned before signing the agreement.

16. Risk Insurance :

The work executed by the contractor under these contract shall be maintained at the contractors risk, until the work is taken over by the Executive Engineer. The Government shall not be liable to pay for any loss or damages occasioned by or arising out of fire, flood, volcanic eruption, earth quake, other convulsion of nature calamities, risks arising out of acts of God during such period and that the option whether to take insurance coverage or not to cover such risks is left to the contractor.

17. Standard specifications:

For detailed description of various items of works to be executed in addition to the brief description given in the schedule A and for the rights and obligations of the contractors etc., the attention of the contractors is invited to Tamilnadu building practice which should be followed in all respect both in latter and sprit. The materials used, the workmanship, the mode of execution of the work etc., should confirm the relevant specification on TNBNP.

18. Safety code:

The safety measures and all amenities for the labours shall be made by the contractor at his cost as indicated in the safety code vide appendix to general conditions to contract and clause 34,35 and 42–1 to 42–7 of general conditions of contract.

19. Retention of 2 1/2% for one year:

In case of contracts for construction of buildings either permanent (or) semi-permanent buildings a sun equivalent to 2 ½% of the value of work done will be retained with the Government for a period of one years reckoned from the date of completion of the work done by the contractor. The amount so retained with the Government will be refunded only on expiry of one year period referred to above and on execution of indeminity bond by the contractor for a further period of four years.

The contractor shall be liable to set right all defects arising out of his faulty execution (or) sub-standard work noticed during the above five years period at his cost.

20. Recovery of dues under revenue recovery act:

Contractor

Any amount fallen due from the contractor on account of this contract even after recovering from the bills for this work and any other contract awarded to the contractor than the amount is liable to be recovered under the provision of Revenue Recovery Act.

Additional condition of contract : II

- The contractor shall at his own expense provide arrangement for the provision of footwear for any labour doing cement mixing work and all other similar type of work involving the use of tar mortar etc, to the satisfaction of the engineer incharge and on his failure to do so Govt. shall be entitled to provide same and recover the cost from the contractor.
- 2. when there are complaints of non payment of wages to the labour bills of the contractor may be with held pending a clearance certificate from the labour department.

# ADDITIONAL CONDITIONS .. III

Rules for the provision of Health and Sanitary arrangements for workers employed by the P.W.D., and their contractors.

 The contractor's special attention is invited to clauses 37, 38, 39 and 51 of general conditions of Contract in the TNBP and he is requested to provide at his own expense the following amenities to the satisfaction of the J.C / E.O or his authorized Engineer.

### 1. First Aid :

At the work site, yard shall be maintained in a readily accessible place, first aid appliances and medicines including supply of sterilized dressings and sterilized cotton wool. The appliance shall be keep in a good order. They shall be placed under the charge of responsible person who shall be readily available during working hours.

2. Drinking water:

1.

- a. water of good quality fit for drinking purpose shall be provided for the workpeople on scale not less than fifteen litres per head per day.
- b. Where drinking water is obtained from an intermittent public water supply system each work place shall be provided with storage tank where such drinking water shall be stored.
- c. Every water supply and storage shall be at a distance of not less than 50 Feet from any latrine drain or sources of pollution where water is to be drawn which is within such proximity of latrine drain or any other source of pollution the well shall be property chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.

2. A reliable pump shall be fitted to each covered well, the trap door shall on kept looked and opened only for cleaning or inspection which shall be done at least once in a month.

#### 3. Washing and bathing places

Adequate washing and bathing places shall be provided separately for men and women, such bathing place shall be kept in clean and drained condition bathing (or) washing should not be allowed in or near any drinking well. 4. Latrines and urinals

These shall be provided within premises of every work place latrines and urinals in an accessible place and the accommodations separately for each of them shall be on following scale or on the scale as directed by Executive Engineer in any particulars use.

- 1. Where the No., of persons employed does not exceed 50-2 seats
- 2. Where the No. of persons employed excess 50 but does not exceed 100-3 seats.
- 3. For every additional 100 persons- 3 seats. If women are employed separate latrines and urinals screened from those for Men shall be provided on the same scale. Except in work place provided with water flush out latrines connected with a water borne sewage system all latrines shall be provided with receptacle on dry earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in strictly sanitary condition. The receptacles shall be tarred inside and outside at least once a year. The excreta from the latrines shall be disposed off at the contractors expenses in outway pipe approved by the local public health authority. The contractor shall also employ adequate No., of scavengers and conservancy staff to keep the latrines and urinals in a clean conditions.
  - 5. Shelters during rest

At every work site there shall be provided free of cost two suitable sheds one for meals and other for rest separately for men and women for the use of labourers.

6. Creches :

At every work place at which 50 or more women ordinarily employed there shall be provided two huts of suitable site for the use of children under the age of 6 years, belonging to such women one hut shall be used for infants games and play and the other as their bed room. The huts shall not be constructed on a lower standard than the following.

- 1. Thatched roofs
- 2. Mud floors and walls
- 3. Plants spread over the mud floor and covered with mattings.

The site of the crethes should very according to the No. of women workers. The crethes should be properly maintained and necessary equipment like toys etc., shall be provided huts shall be provided with suitable

Contractor

and sufficient sweepers to keep the place clean. There shall be Aayas in readiness, Sanitary urinals shall be provided to the satisfaction of the health officer of the area concerned.

The No of huts shall be restricted to children, their attendants and mothers of the children.

7. Canteen:

Cooked food canteen on a moderate scale shall be provided for the benefits for the workers as it is considered expedient.

8. Sheds for workmen

The contractor should provide at his own expense ahead for housing the workmen. The sheds shall be on standard not less than the cheaper shelter type to live in which the work people pertaining in the locality are accustomed to. A floor area of 1.80 mx1.30m for two persons shll be provided. The sheds to be in rows with 1.3 m a clan space between sheds and 9m clear space between rows if condition permit. The work people camp shall be laid out in units of 400 persons each unit to have a clear space of 12m all round.

Additional condition: IV

Safety provision in the building industry condition in addition to clause 4 of preliminary specification T.N.B.P.

Article-1:

## PART -1

- 1. Suitable scaffolds shall be provided for workmen for all work that cannot be safety done from ladder or by other means.
- 2. A Scaffold shall not be constructed taken down or subsequently altered except. a) under the supervision of the competent and responsible persons and b) by as far as possible competent workers possessing adequate experience in such kind of work.
- 3. Scaffolds shall be so constructed that on part there of can displaced in consequence of normal use.
- 4. Scaffolds shall not be over loaded one as far as practicable the load shall be evenly distributed. Before installing lifting gear or scaffolds, special precaution shall be taken to ensure the strength and stability of the scaffolds.
- 5. scaffolds shall be periodically inspected by a competent persons.
- 6. Before allowing a scaffold to be used by the workmen every employer shall whether the scaffold has been executed by his workmen or not take steps to ensure that it functions full with the requirements of this articles.

53

- Working platforms gateways and stairways shall be so constructed that part thereof can save unduly (or) unequally.
- To be so constructed and maintained to obviate from risks of persons tripping or sliding and to be kept free from any un-necessary obstructions.
- 3. Every working plat form gateway working place and stairways shall be suitably tested.

Article -3.

- Every opening in the floor of a building or n a working platform shall except for the time and to extent required to allow the access of persons or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.
- 2. When persons are employed on a roof there is danger of falling from height exceeding than to be prescribed by national laws of regulations suitable precaution shall be taken to prevent the fall of persons or materials.
- 3. Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working places.

Article -4:

- 1. Safe means of access shall be provided to all at working platforms and other working places.
- Every ladder shall be securely fixed and of such length as to provide securely hand hold and foot bolt every position which it is used.
- 3. Every place where work is carried out and the means of approach there to shall be adequately lighted.
- 4. Adequate precautions shall be taken to prevent danger from electrical equipment.
- 5. No matter is on the site shall be constructed or placed as to cause danger to any persons.

Article -5 (General rules as to hoisting appliance : Article :5)

- 1. Hoisting machines and tackle including their attachments encharges and supports shall
  - a. Be of good mechanical constructions sound materials and adequate strength and free from patent defect and to be kept in good working order.
  - b. Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.

Article –6:

 Hoisting machines and trake shall be examined and adequately tested after erection on the site and before use and pre-examined in position at intervals to be prescribed by national law of regulations. 2. Every chain ring, hook shackle, swivel, level and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.

Article -7:

- 1. Every crane driver or hoisting appliances operator shall be properly qualified .
- 2. No persons under the age of 21 years shall be in control of any hoisting machine including any scaffold which or give signals to the operator.

Article -8:

- In the case of every hoisting machine and of every chaining hook shackle, level and pulley block used in hoisting or lowering or as a means of suspension the safe working load shall be ascertained by adequate means.
- Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load.
   In the case of hoisting machine having a variable safe working load each safe working load and the conditions under which it is applicable shall be clearly indicated.
- 3. No part of any hoisting machines of any gear referred to above in the preceding paragraphs shall be loaded beyond the safe working load except for the purpose of testing.

Article -9:

- 1. Motor gear, transmission, electric wiring and other dangerous parts of hoisting appliance shall be provided with efficient safe guards.
- 2. Hoisting appliances shall be provided with such mean as will request to a minimum the risk of the accidents.
- 3. Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally display.

Contractor

#### PART -III

#### GENERAL RULES, TO SAFETY EQUIPMENT AND FIRST AID:

Article -10:

- 1. All necessary personal safety equipment shall be kept available for the use of the persons employed on the site and be maintained in a condition suitable for immediate use.
- 2. The workers shall be required to use the equipment provided and the employer shall take adequate steps to ensure proper use of the equipment by these concerned.

Article -11:

When work is carried on in proximity to any place where there is a risk of danger all necessary equipment shall be provided and kept ready for use and al necessary steps be taken for the prompt, reasons of any persons in danger.

Article -12:

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

## Article -13:

Where large work places are situated in cities, town or in the sub-urban and no beds are considered necessary owning to the proximity of city or town hospital, suitable transport shall b e provided to facilitate removal of urgent cases to hospital at other work places, some conveyance facilities such as care shall be kept readily available to taken injured persons or persons suddenly taken seriously ill to the nearest hospital.

#### ADDITIONAL CONDITION NO. V WATER AND LIGHTING.

The contractor shall pay all fees and provide water and light as required from Municipal Mains or other sources and shall pay charges therefore (including storage tanks meters etc., ), for the use of the work and workmen, unless otherwise arranged and decided on in writing with Executive Engineer. The water for the works shall be as far as practicable free from earthy, vegetable or organic matter and from salts of other substance likely to interfere with the setting of motor otherwise prove harmful for the work.

2. All items of works shall be done in accordance with the relevant Clause of TNBP and Addenda volume to the TNBP amended from time to time.

3. The contractor shall be responsible for the safe custody of all the departmental materials once they are handed over to the departmental stores. The cost of any materials in the custody of the contractor lost, stolen, destroyed, or damaged, will be recovered from the contractors at the issue rate.

Contractor

4. For the testing of the concrete and aggregate, the contractor must procure the following equipments and make them available at site

i) Steel mould for making 5cm cubes of concrete. The mould will be in two halves for easy removal.

ii) Slump cone for testing consistency (slump test). The cone will be 30cm height truncated cone with top and bottom diameter for 10cm and 20 cm respectively. In addition, a steel rod 15cm diameter and 50cm length and wide tamping and rounded is to be procured.

iii) For finding fitness moulds, sand and coarse aggregate, hand operated sieve apparatus may be procured along weighing machine for weighting the aggregate sand.

5. In the case of any breach of the terms of the contract, contract will be closed at the risk and costs of the contactor in addition to the forfeiture of the Earnest Money Deposit, Security Deposit.

6. The testing is to be done at the contractor's cost of building materials and also for concrete cubes.

#### ADDITIONAL CONDITION No. VI.

1. The work shall be executed and measured as per metric dimension given in the schedule of quantities, drawings etc., P.F., units wherever indicated are for guidance only.

2. Unless otherwise specified, all the rates quoted by the contractor shall be for works at all levels of building.

3. Rates for every item of work to be done under this contract shall for all the lifts and leads, height, depths, lengths, and width except when specifically mentioned in the item otherwise nothing extra will be paid on this account.

4. The work shall be carried out as per drawings and designs supplied by department and as directed by the Executive Officer or his authorized Engineer –in–Charge.

5. The rate for all items in which use of cement is involved is inclusive of charge for curing .

6. The contractor has to make his own arrangements for procuring water for construction purpose,. Construction and curing should be done with water free from injurious amounts or deleterious materials. Potable waters are generally considered satisfactory for curing, mixing concrete and masonry. However, the water to be used should be periodically tested at contractor's cost for its suitability for using in the construction work and got approved from the departmental Engineers.

### ELECTRICITY.

7. The contractor should make his own arrangements for obtaining electricity for all types and use like lighting, welding, pumping, mosaic and marble polishing etc.

Contractor

8. The contractor should submit the PERT chart for the programme of work on the date of taking over site.

9. Any damage to work resulting from rains or from any other cause until those work is taken over by the department after completion will be made good by the contractor at his own cost.

10. The contractor shall have to work in cooperation with contractor for electrical works, sanitary and water supply and other items of works.

11. The contractor shall work in cooperation with electrical contractor while laying the conduit pipes and other electrical items for concealed wiring in RCC works.

12. The centering and form works shall be true rigid and adequately braced both horizontally and diagonally and leak proof. The form work should be sufficiently strong not only to withstand dead load and live load but also to withstand the effects of vibration. In all these cases, as per I.S. code and TNBP the standards should be followed. It should be specifically ensured that it is leak proof in joints.

## ADDITIONAL CONDITION NO. VII.

#### SPECIFICATION FOR SANITARY FITTINGS., DRAINAGES, AND WATER SUPPLY ARRANGEMENTS.

1. Water closets, basins, urinals sinks and other sanitary wares shall be of approved make, as required in the relevant items. The fixing of these shall be in accordance with the special specifications.

2. The rates shall include all dismantlings, making holes in walls or slabs and restoring the structure to original condition after the completion of the work.

3. The work should be carried out with least hindrance to the adjoining buildings and the contractor shall be responsible for any damage caused to the existing fixtures, electric fittings etc., in the course of execution, and the contractor shall make good any such damage without claims for extra.

4. The rate for laying stoneware pipes shall include necessary incidental charges during execution of work and making good any damages to roads and other structures.

5. Rates for laying cast iron pipes and galvanised iron pipes (or) PVC pipes shall include fixing with wooden plugs, G.I. /C.I. clamps and screws where the pipes are fixed to walls.

The rates for G.I. pipes shall also include wrapping them with tarred straps where they are buried in earth, tarring the portion embedded in masonry and painting with white lead with two coats for portion above ground level.

6. The clause for G.I. pipe fittings should be spaced at convenient places as directed. The wooden plugs for pipes and brackets fittings should be properly fixed in cement mortar 1:3 suitably in masonry with wide end of wedge shaped plugs inside and not hammered with them and into the walls the size of plugs should not be less than 25mm square at one end 40mm at the other end with a depth of not less than 75mm.

7. Painting with two coats of best white paint (or) any other colour approved by Executive Engineer over priming coat of red lead to all flushing tanks, brackets, clamps used for fixing pipes and all other connections.

Contractor

8. The contractor should employ sufficient number of qualified licensed plumbers with necessary experience and skill in the trade to the satisfaction of the Executive Engineer concerned for execution of water supply and sanitary items of works.

9. The contractor shall after laying of the pipes carry out the tests of the pipes, specials, joints and other fittings against leakage at his own cost according to the relevant I.S.I. to the fullest satisfaction of the departmental officers.

10. In the case of reinforced cement concrete or masonry water retaining structures, the contactor shall ensure that there is no leakage or dampness on the external faces of the structure. In the event of any above being noticed, the same shall be rectified by the contractor at his own cost, adopting standard approved methods of rectification to the fullest satisfaction of the departmental officers.

#### SUPPLYING AND FIXING INDIAN TYPE WTER CLOSETS.

1. The Indian type water closet shall be fixed in position at floor level in a bed concrete of brick jelly in lime mortar 1:2 so as to completely embed the closet, trap and foot rest. The existing masonry structure after dismantling the foot making, holes etc., shall be restored to its original condition after completion of the work. The flooring around the closet shall be finished with cement mortar 1:3, 20mm thick with adequate slope all round for draining into the closet. The foot rests should be fixed at an angle as per standards.

2. The PVC flushing tanks shall be of three Gallons capacity of Indian make conforming to I.S.I. specification supported on G.I. brackets with necessary C.I. chain and handle for pull float ball value of 2 P.V.C. connection to the water main and closet including wiped with white glazed paint of 2" coats over a priming coat of red lead

3. The fixing of water closet shall include the dismantling of existing floor wherever necessary and making necessary holes in walls etc., and restoring the structure to original condition after completion of the work. The flushing tank and accessories will be fixed to the walls with necessary clamps and brackets in cement mortar 1:4.

### ADDITIONAL CONDITION FOR CONTRACTORS ' SPECIAL ATTENTION. NO. VIII.

As per clause 26 (1) 4 of General conditions of contract, the shrinkage period of six months referred to in main clause 26(1) will be one year in respect of all contract for construction of original buildings either semi permanent or permanent to ensure structural stability of the building and as per G.O.Ms.No. 283, P.W.(G2) Department, dated 21.5.1999.

As per clause 64 (1), the withheld amount of 2 ½ % from the final. Bill in respect of contract for construction of original buildings will be retained by the Government for a total period of one year in lieu of two years period referred to in G.O.Ms.No. 1465, P.W. dated 22.7.1982 and will be released either on the expiry of one year period on executing an Indemnity bond by the contractor to the satisfaction of the Executive Engineer, for a further period of four years to ensure structural stability of the building under clause 20(1) and as per G.O. Ms. No. 283, P.W. (G2) Department, dated 21.5.1999.

## ADDITIONAL CONDITION FOR CONTRACTORS ' SPECIAL ATTENTION. NO. IX.

The contractor is bound for recovery under Revenue Recovery Act for any liabilities under this contact.

Contractor

.

If at any time the Executive Engineer shall be of the opinion that the contractor is delaying commencement of the work or violating any of the provisions in the Articles of Agreement, the Executive Engineer shall so advise the contractor in writing and at the same time demand compliance. If the contractor neglects to comply with such demand, within seven days after the receipt of such notice, it shall then or at any time thereafter, be lawful for the Executive Officer to terminate the contract which termination shall carry with the forfeiture of the security deposit and total of the amount withheld from the final bill together with value of such work as may have been executed and not paid for such proportion of such total sum as shall be assessed by the Executive Officer.

General specifications:

- Cement concrete flooring tiles shall be manufactured from mixture of cement natural aggregates and colouring materials where required by pressured process. Fixing manufacture, the tiles shall be subjected to a pressure not less than 140kg/cm<sup>2</sup>.
- 2. Proportion of cement to aggregate in the backing of the tiles shall be not less than 1:3 by weight.
- 3. On removal from mould, the tile shall be kept in moist continuously at least for 7 days and subsequently if necessary for such a longer period that would ensure their conformity to the requirements to Traverse strength resistance of wet and water absorption and would minimize shrinkage and cracking, tiles shall be stored under covers.
- 4. Tolerance : Tolerance on length and breadth shall be plus or minus one millimeter. Tolerance thickness shall be plus 5mm, the range of dimensions if any of one delivery of tiles shall not exceed 1mm., length and breadth and 3mm., on thickness.
  - Class of tiles Minimum thickness of wearing layer Plain cement and plain coloured tiles general purpose. 3 mm Plain cement and plain coloured tiles for heavy duty 6mm (Mosaic) terrace tiles with chips of size varying from the smallest up to 5mm 6mm. (Mosaic) terrace tiles with chips 12mm size ranging from the smallest up 5mm to 12mm, or 1/2" (Mosaic) terrace tiles with chips of size varying from the smallest up to 6mm 20mm or 34"
- 5. THICKNESS OF WEARING LAYERS:

- 6. Colour and appearance: The colour and texture of the wearing layer shall be uniform through its thickness.
- 7. When specifying the tiles, the contractor should specifically indicate whether the chips to be used are from the smallest to 20mm, size. The officers of the department shall also specify size of chips by referring the approximate photograph given in indian standard No. 1237/1959.
- 8. General quality of tiles

Unless otherwise required the wearing face of the terrace tiles shall be mechanically found and filled. The bearing face of the tiles shall be placed, free from projections, depression and cracks (Hair cracks not included) and shall be reasonably parallel to the blackface of tiles. All angles shall be right angles and all edges shall be sharp and true.

Size of tiles	Span	Breaking wet test	Land based dry test	
cm.	cm.	cm. kg.	Kg	
19.58x19.85	15	71	106	
24.85x24.85	20	90	120	
29.85x29.85	25	99	149	

9. BREAKING TRAVERSE STRENGTH OF TILES SHALL BE GIVEN AS BELOW:

- 10. The average wet of not less than 12 specimens shall not exceed 2mm., and the weather any individual specimen shall not exceed 2.5cm., when tested in an abrasion testing machine.
- 11. The average percentage of water absorptions not less than six full tiles, specimen, shall not exceed than in the case of water absorption test.
- 12. The density of the tiles shall be in the order of around 2.4gms. The tiles shall be laid with the minimum possible width of joints and not exceeding 1/32 inches. The joints shall be filled with grey cement to match the finish of the tiles and shall be made almost invisible when the floor is given the final polish. The polishing shall be done by means of electric polisher wherever possible and hand polish to other places like vertical faces, or wall coves and other areas where the machines can have not access and glossy, surface as even as possible.

All angles at junction of vertical faces shall be rounded of to the 1<sup>//2</sup>" radius with same quality of materials and colour of the tiles of the floor. But laid in situ and these coves shall be measured as part of flooring and paid for at the same rates and the flat floors. The colours of the tiles shall generally match other coloured face adjustment or as may be the directed by Executive Engineer.

(Sd ) Executive Officer Chennai Arulmigu Ekambareswarar

Temple, Chennai-03.

The dadooing and skirting have to be finished by giving necessary faces in the brick wall itself so that the projection does not exceed ½" from the face of the wall tiles, the finish plastered surfaces.

Based on the modulus of rupture of 30kg sq m for dry test and two thirds of the value of wet test.

#### GUIDELINES FOR ADDITION OF STRENGTH GRADING OF CONCRETE:

Plain and reinforced concrete have been graded according to the cube compressive strength and designated as M100. M150. M200. M 250. M300 and M400 the designation of concrete the letter refers to the mix and the Number to the specified 28days work cube compressive strength of that mix expressed in Kg/cm<sup>2</sup>.

Approximately the M.100 M150. M200 and M250 grades of concrete corresponds 1:3:6, 1:2:4, 1.11/2:3, 1:1:2 nominal mixes of ordinary concrete used.

The proportion aggregate cement and water to be used for controlled concrete shall be designed by preliminary tests of materials to be actually used to obtain and specified strength with the use of minimum quantity of cement, however the maximum total quantity of aggregate by weight per 50kg of cement shall not normally exceed 450kg.

For any particular item, compressive strength required to be obtained by the concrete at 26days in the preliminary and works tests on the 15cm. cubes minimum cement concrete required to be used and the approximate proportions of approved fine and coarse aggregate shall be specified in the tender schedule. These particulars will be only for the guidance of the contractor for quoting rates.

Immediately upon the receipt of the award of the contract, contractor shall inform the Executive Engineer, the exact location of the source of the materials where he proposed to use and get the materials approved. The mix with the actual approved materials to be used shall be got designed in an approved laboratory by the contractor with minimum quantity of cement to the specified strength in the preliminary test and the proportions got approved from the Executive Engineer in writing. These proportions shall be used.

So long as the materials continue to be of the same quality and the same sources subject only to slight changes in the relative qualities of fine and coarse aggregate for the purpose of promoting workability provided the works tests also show the required strength.

If during the progress of work the contractor wishes to change the materials the proportion shall be mixed on the basis of fresh preliminary tests to give the required strength after the Executive Engineer is satisfied that the materials satisfy the specification. No adjustment of cost shall be made for change of proportions of cement fixed in the original preliminary tests.

#### **PROPORTIONATE OF MIX:**

Each batch of mix shall be proportioned to weight of cement fine aggregate and course aggregate water for each batch shall be added in quantity measured by volume or by weight, where weight of cement as determined by accepting the maker's weight per bag a reasonable number of bags shall be weighted separately to check net weight, where the cement is weighted on the site and not in bags its shall be weighted separately from the

aggregates. All the weighting equipments shall be maintained in a clean and serviceable condition and their accuracy checked periodically.

Mixing:

Mixing shall be done only by mechanical mixers. The quantities of the aggregate and water shall be adjusted duly in the field to compensate for bulkage due to the quantity of moisture prevent in the fine aggregate and free water in the course aggregate at the time of use.

#### TESTS:

Tests shall be got done in an approved laboratory at the cost of the contractor.

#### A. Preliminary tests

If concrete mixers are specified by its strength than the mix heeds be designed and preliminary tests should be carried.

A preliminary tests is conducted in a laboratory of the trial mix of concrete produced in the laboratory with the object of:-

- a. designing of concrete mix before the actual concrete operation starts.
- b. Determining the adjustments required in the designed mix or when there is change in the materials used during the execution of work.
  - Verifying the strength of concrete mix.

# B. works tests:

C.

The test conducted either in the field or in a laboratory on the specimen made on the works out of concrete being used on the works.

The sampling shall be spread as evenly as possible throughout the day, when wide changes in whether conditions occur during concreting additional samples may be taken as desired by Executive Engineer.

All expenses on the tests shall be borne by the contractors nothing extra shall be paid to the contractor for carrying out the tests.

All samples for tests shall be taken in the presence of Assistant Executive Engineer concerned and the contractor or his authorized agent.

All mix design and test date and results shall be maintained as part of the record for the contract and shall be signed by the Assistant Executive Engineer and the contractor.

A register of cement concrete cubes cost and tested giving the following particulars shall be maintained at the site. In the proforma prescribed as detailed below:

- 1. Name of the work and reference to agreement
- 2. Sl. No.
- 3. Date and time of sample taken
- 4. Sample No.

Contractor

- 5. No. of cube
- 6. Identification works
- 7. Proportions of mix
- 8. Description of the portion of work represented by the sample and quantity of concrete represented by the sample.
- 9. Initials of Assistant Executive Engineer and contractors authorized agent in whose presence sample is taken.
- 10. Result of 7days test.
- 11. Result of 28 days test
- 12. Review remarks by Executive Engineer.

Extract of : IS 456 - 1964

- 4.2.2.1 :Plain and reinforced concrete shall be in seven graded designed M100, M150, M200, M250, M300, M350 and M400.
- Note: in the designation of the concrete mix, letter M. refereed the mix., and the number to the specified 28 days works cube compressive strength of that mix expressed in kg/cm<sup>2</sup>.
- 4.2.2.2. Strength requirements of concrete

4.2.2.2.1 when a ordinary Portland cement or Portland blast furnace stag cement conforming to accepted standards (vI.5) (21/2 is used the compressive strength requirements for various grades of concrete shall be as given in Table I. Where raind hardening Portland cement is used the 20 days compressive, strength requirement specified in Table 1. Shall be met at 7days, where other cements are used the Engineer incharge shall specify the corresponding requirements preferably on the basis of preliminary tests.

\*IS 269/1458 specification for ordinary rapid hardening and low heat Portland cement is 455/1962 specification for Portland blast slab cement.

4.2.2.2.3 strength requirements specified in Table 1 shall apply to both controlled concrete and ordinary concrete (Sec. 4.3.1) preliminary tests need not however be made in the Case of ordinary concrete.

1. In order to get a relatively quicker idea of the quality of concrete, optional works tests on beam for module or rupture at 72–2 hours of at 7days, or compressive strength tests at days may be carried out in additional to 28days compressive strength tests. In all cases, the 28days compressive strength specified in Table 1 shall alone in the criteria for acceptance or rejection of the concrete. If however, from tests carried out in a particular job over a reasonably long period it has been established to the satisfaction of the Engineer in charge that suitable ratio between the 28days compressive strength and the modulus of rupture at 72+2 hours or at 7 days or compressive strength at 8 days may be accepted the Engineer in charge may be suitably relax the frequency of 28 days compressive strength test specified in the table 5 provided the expected strength values at the specified early age are consistently met. For this purpose the values given in Table 2 may be taken for general guidance in the case of concrete made with ordinary cement.

Contractor

b. where the strength of concrete mix, as indicated by tests, lies between strength for any two grades specified in Table 1. such concrete shall be classified for all purpose as a concrete belonging to the lower of the two grades between which its strength lies.

#### 4.3 PROPORTIONING AND WORKS CONTROL

4.3.1 methods of proportioning the determination of preparations of cement aggregate and water to attain the required strength shall be made by one of the following.

- a. With preliminary tests by designing the concrete mix such concrete shall be called controlled concrete.
- b. Without preliminary tests by accepting nominal concrete mixes such concrete shall be called "Ordinary Concrete".

4.3.2.1 Controlled concrete:

4.3.2.1 As for as practicable, controlled concrete should be used on all concrete works, controlled concrete for use in plain and reinforced concrete structure shall be in grades M100, M150, M200, M250, M300, M350 and M400.

4.3.2.2 : The concrete mix shall be designed to have an average strength corresponding to the values specified for preliminary tests in Table.1. The proportions chosen should be such that the concrete inadequate workability for the conditions prevailing on the work in question and may be properly compacted with the means available.

The maximum, total quality of aggregate by weight per 50kg. of cement shall not exceed 450 kg except where otherwise specifically permitted by the Engineer in charge.

4.3.2.3 Except where it can be shown to the satisfaction of the Engineer in charge that supply of properly grade aggregate of uniform quality can be maintained over the period of works the grading of aggregate should be controlled by obtaining, the course aggregate in different sizes and blending them in the right proportions when required, the different sizes being stocked in separate stock piles the materials should be stock piles several hours preferably a day before use. The grading of course and fine aggregate should be checked as frequently as possible the frequency for a given job being determined by the Engineer, in charge to ensure that the suppliers are maintaining the grading uniform with samples that of the samples used in the preliminary tests.

4.2.3.4 Disproportioning concrete the quantity of both cement and aggregate should be determined by weight. Where the weight of cement is determined by accepting the manufactures weight per bag a reasonable number of bags, should be weighted separately to check the net weight. Where the cement is weighted on the site and not in bags, it should be weighted separately from the aggregates. Water should on either measured by volume in calibrated tanks (or) weighted all measuring equipments should be maintained in a clean serviceable condition and their accuracy periodically checked.

4.2.3.5 it is most important to maintain the water cement ratio constant at its correct value. To this end determination of moisture contents in both find and coarse aggregate should be made as frequency as possible the frequency for given job being determined by the Engineer in charge according to weather conditions the amount or

Contractor

the added water should be adjusted to compensate for any observed variations in the moisture contents. For the determination of moisture content in the aggregate is /2386 part III 1963. Methods of test for aggregate for concrete part III specific gravity, density, voids, obsorption building, may be referred to allow for the variation in weight of aggregate due to variation their moisture content suitable adjustments in the weights of aggregates should also be made.

4.3.2.6 No substitution in materials used on the work for alterations in the established proportions except as permitted in 4.3.2.5 shall be made without additional tests to show that the quality and strength of concrete are satisfactory.

4.3.2.7 Workability of the concrete should be checked at frequent intervals, the slump test or where facilities exist, the compacting factor test – in accordance with IS-1199 and 1950 may be adopted for this propose.

4.3.2.8 A competent person should be employed whose first duty will be to supervise all stage in the preparation and placing of the concrete. All works test specimen should be made and site tests carried out under his direct supervision.

4.3.3 Ordinary concrete:

4.3.3.1 Where it is considered not practicable to use controlled concrete ordinary concrete may be used for concrete of grades M100, M150, M200 and M250. The proportions of materials for nominal concrete mixes for ordinary concrete shall be in accordance with table III.

4.3.3.2 In proportioning concrete, the quantity of cement should be determined by weight. The quantities of fine & course aggregate may be determined by volume, but these should also preferably be determined by weight. In the latter case the weight should be determined form the volume specified in table III and the weight per litres of dry aggregate. If fine, aggregate is moist and volume batching is adopted. Allowances shall be made for bulking in accordance with IS.2386/ Part III –1963.

4.3.3.3. The water cement ratio shall not be more than these specified in Table III.

The cement concrete of the mix specified in Table III for any nominal mix may be increased if the quantity of water in a mix was to be increased to over come the difficulties of placement and compaction so that the water cement ratio specified in Table III is not exceeded.

- Note 1: In the case of Vibrated concrete, the limit specified may be suitably reduced to avoid segregation.
- Note 2:The quantity of water used in the concrete mix for reinforced concrete work should be sufficient but should not be more than sufficient to produce а dense concrete of adequate workability for its purpose which will surround and properly grip, all the reinforcement workability of the concrete should be controlled by maintaining a water cement ratio that is found to give a concrete which is just sufficiently wet to be placed and compacted without difficulty with the means available.

4.3.3.4 Workability of the concrete should be controlled by directed measurement of water content, making allowance for any surface water in the fine and course aggregates. The slump test in accordance with IS 1199/1959 may be used as guide.

4.3.3.5 Allowance should be made for surface water present in the aggregate when computing the water content, surface, water shall be determined by one of the field methods described in IS 2336/Part III1963. In the absence of exact date the amount of surface water may be estimated from the values given in Table 4.

4.3.3.6 If ordinary concrete made in accordance with the proportions given for a particular grade does not yield the specified strength due to proper qualities of materials not being available such concrete shall be classified as belonging to the appropriate lower grade. Ordinary concrete proportioned for a given grade.

IS 2386 Method of test for aggregate for concrete

IS 2386 (Part. III) 1963 specific gravity.

Density works absorption and bulking.

In accordance with Table III shall not, however be placed in a higher grade on the ground that the test strength and are higher than the minimum specified no inter-polation shall be permissible.

4.4 Sample size and acceptance criteria.

4.4.1 All tests shall be carried out in accordance with IS 516-1959.

4.4.2 The number of test specimen required the frequency of sampling and the criteria for acceptance of a concrete as conforming to the specified grade shall be in accordance with Table V for both ordinary concrete and controlled concrete No preliminary tests are however necessary in the case of ordinary concrete.

#### TABLE -1 STRENGTH REQUIREMENT OF CONCRETE

#### CLAUSE 4.2.2.1 AND 4.2.2.2

All values in Kg/Cm<sup>2</sup>.

Grade of concrete	Compressive strength of 15cm., cubes at 28days after mixing conducted in accordance with IS 516-1959							
	Preliminary test Min Works test min							
M.100	135	100						
M.150	200	150						
M.200	260	200						
M.250	320	250						
M.300	380	300						
M.350	440	350						
M.400	500	400						

Note 1: Preliminary Test : A test conducted in a laboratory on the trial mix of concrete produced in the laboratory with the object of

Contractor

- a. Designing a concrete mix before the actual concreting operations starts.
- b. Determining the adjustments required in the designed mix when there is a change in the materials used during the execution (or)
- c. Verifying the strength or concrete mix
- Note 2 : Works Table All test conducted either in the field or in a laboratory in the specimens made on the works out of the concrete being used on the works.
- Note 3: Sizes of Cubes in the works test with the approval of the Engineer in charge 10cm cub as may be used in place of 15cm provided the maximum nominal size of aggregate does not exceed 20mm even the use of 15cm cubes should normally be restricted to concrete having a maximum nominal size of aggregate not exceeding 40mm size is required to be tested the size of cubes should specified by the Engineer in charge keeping in view that generally the length of size of the cube should be about four times the maximum nominal size of aggregate in the concrete constituting the cube specimen.

#### Note 4: Strengthening Rotation to size of cube

Where 10cm cubes are used the values obtained from tests, of 10cm s cubes shall be reduced to the extent established by comparative preliminary tests with 10& 15cm. cubes or in the absence of such compressive test, by 10 percent of the value of determined from the tests in order to give the equivalent strength for 15cm., where cubes larger than 15cm are adopted generally modification is necessary unless otherwise specified by the engineer in charge.

#### Note 5: Cylinder strength:

Compressive strength tests may with approval of the engineer incharge be conducted on 15cm diameter and 30cm., high cylinders in accordance with IS-516-1959 ubstead if a cube, where cylinder strength figures are adopted the compressive strength figures given above shall be modified according to the formula, minimum cylinder compressive strength required 0.8 compressive strength specified 15cm cubes.

The central Road Research institute, New Delhi has carried out tests with a view to establishing a relation between water cement ratio and the compressive strength concrete using ordinary Portland cements manufactured in the country in accordance with IS 269–1959.

As a result of these, it has been considered advisible to give graphs showing the relationship between the compressive strength of concrete mixes with different water cement ratios and the 7 days compressive strength of cement tested in accordance with IS-269-1959. These graphs have been given in appendix as they would be of some assistance in obtaining the water cement ratio for trial mixes of concrete.

Table II : Optional work Test Requirement of Concrete:

(Clause 4.2.2.2 (a): (All values in  $kg/cm^2$ .)

All test shall be conducted in accordance with IS : 516 - 1959

Contractor

	Compressive strength	Modulus of rupture by beams test		
Grade of concrete	on 15cm cube min. at 7day	At 72+2 Hours	At 7 Days	
M.100	70	12	17	
M.150	100	15	21	
M.200	130	17	24	
M.250	170	19	27	
M.300	200	21	30	
M.350	235	23	31	
M.400	270	25	34	

Note : Note 2 and 3 under tables I are also applicable to Table II

# Table III: CONCRETE MIX PROPORTIONS (dause 4-3-5)

#### ORDINARY CONCRETE

Grade of concrete	Total quantity of dry aggregate by volume per 50 kg of cement to be taken at the sum of the individual volume of fine and course aggregate mix	Proportion of fine aggregate to course aggregate	Quantity of water per 50 kg of cement mix
1	2	3	4
M.100	300	Generally 1:2 for fine aggregate to course aggregate by volume but subject to upper limit of 1:1 ½ and a lower limit of 1:3	34 Litres
M.150	220	-do-	32 Litres
M.200	160	-do-	30 Litres
M.250	100	-do-	27 Litres

Note 1: The proportion of the aggregate should be adjusted from upper limit of lower limit progressively as the grading of the fine aggregate become fine and the maximum size of course aggregate become larger.

Examples: For an average grading of fine aggregate that is zone II. I.S. 383/1963 the proportion shall be  $11\frac{1}{2}$ , 1:2 and 1:3 for maximum size of aggregate 10mm, 20mm and 40mm respectively.

Note 2: It may be noted for general guidance that M.100, M.150, M.200 and M. 250 of ordinary concrete corresponding approximately to 1:3:6, 1:2:4, 1:1½ :3 and 1:1:2 nominal mixes of ordinary concrete currently used in the country.

Contractor

Table IV: Surface with water carried by average aggregate :

Aggregate	Approximate quantity of surface water (M3)
(1)	(2)
Very wet sand	120
Moderately by wet sand	80
Moist sand	40
*Moist gravel or crushed rock	20 to 40

\*Coarser the aggregate less the water it will carry.

# Table IV: Preliminary Test : Work Test acceptance Criteria for Concrete (ALL GRADES)

Minimum No. o specimens fron		Criteria for			Minimum F	Minimum Frequency			
	Frequency	acceptance	Cubes		Beams				
7dayscompre28ssivedaysstrengtcomprehtestasstrengtoptionalth test			7 days compr essive streng th test as an	25 days compr essive streng th test	72+2 Hours test as an option al test if	7 days test as an option al test if	In terms of the quality of concrete	In terms of period	Criteria for acceptanc e
1 2	3	4	5	6	7	8	9	10	11
5 5	For each batch with a minimum of three batches	Accept for if average compressive strength of the specimen tested is not less than the compressive strength specified in Table –I (For Optional tests See Table–2) subject to the condition that only one out of six consecutive	3	3	3	3	For every 150 cubic metre of concrete or part thereof	At such intervals as the Engineer in charge, may decide. However in the case of concrete sample shall be drawn on each day for the first four day of concreting and there after at least once in seven days of	Accepted to average strength of the specimen test is not less than the strength specified Table -I (For optional test see Table-2) subject to the condition that only

Contractor

					71
	test may			concreting.	one out of
	give a value				three
	less than				consecutiv
	specified				e test may
	strength				give a
					value less
					than 90%
					specified
					strength.

1	2	3	4	5	6	7	8	9	10	11
									Once in 7	Strength but
									days of	this shall not
									concreting	be less than
										90% for the
										specified
										strength
	10	For each	Accept if	5	5	5	5	For	All such	Accept if
		batch with a	average					every	intervals as	average
		minimum of	compressive					150	the Engineer	strength of
		three batches	strength of					cubic	in charge	the specimen
			the					metre	may	tested is not
			specimens					of	decided.	less than
			tested is not					concret	However in	strength
			less than the					e or	the case of	specified in
			compressive					part	controlled	Table-I (For
			strength					thereof	concrete	optional tests
			specified in						samples	see Table-2)
			Table–I						shall be	subject to the
			subject to the						drawn on	condition the
			condition that						each day for	one out of
			the average						the first four	five
			compressive						days of the	consecutive
			strength shall						concreting	tests may
			be more than						and there	give a value
			the specified						after at	less than the
			compressive						least one	specified
			strength in						seven days	strength.
			Table-I, by at						of	
			least the						concreting	
			value of							

Contractor

			72
standard			
deviation*	of		
the series	s of		
the test			

18. The Tenderers who are themselves not professionally qualified shall undertake to employ the qualified technical men at their cost to look after the work. The Tenderers should state in clear terms whether they are professionally qualified or whether they undertake to employ technical men required by the department specified in the schedule below for the work. In case the selected Tenderer is professionally qualified or whether they undertake to employ technical men required by the department they undertake to employ technical men required by the department specified in the schedule below .or has undertaken to employ technical men under him, he should see that one of the technically qualified men should always be at site of the work during working hours personally checking all the items of works and paying extra attention to such works as may demand special attention e.g. reinforced concrete works etc.

# **GENERAL CONDITIONS OF CONTRACT**

## A. PREFACE

I. Intent and reference to Tamil Nadu Building Practice It is intended by these Tamilnadu Practice to describe;

- a. The character of the materials to be used
- b. The method of execution of work and

c. The contractor's responsibilities to the Public, Government and his workmen and general contract conditions which are to be accepted by every contractor who executes work entrusted to him by the Department.

12 Wherever the term "Standard Specifications" or "Specifications" of the abbreviation "T.N.B.P. No" or "TNBP" is used in the specifications or in estimates or contract documents, it shall refer to the relevant specification in the Tamilnadu Building Practice.

# 1.3 The abbreviation "I.S." shall mean 'Indian Standard"

### 2. Applicability of the Tamilnadu Building Practice

2.1 It shall be unnecessary to include in any contract

documents a specification for any item of work which is defined

in the tender notice or in the contract schedule of work to be done by a Tamilnadu Building Practice number (TNBP No). The fact that the item is defined as specification, shall mean that the contractor is to execute the work according to such specification modified as may be necessary by an addendum specification for that particular item of work. In the absence of specification for any work or material in the T.N.B.P. such work should be carried out in accordance with the instruction given by the Executive Engineer.

2.2 THESE GENERAL CONDITIONS OF CONTRACT

SHALL APPLY TO ALL AGREEMENTS ENTERED INTO BY CONTRACTORS WITH THE PUBLIC WORKS DEPARTMENT OR HIGHWAYS AND RURAL WORKS DEPARTMENT AND shall form an inseparable condition of contract and it shall not be necessary to append a copy of the same to the agreement.

# Contractor to sign in the Divisional (or the Sub- divisional) copy of the T.N.B.P.

3.1 Every Contractor who executes work for the Public Works Department or the Highways and Rural Works Department shall carefully study the specification for all items of work which are included in the schedule for work to be done and his obligation under the "General Conditions of Contract" which apply to all agreements, and he shall sign in the Divisional Office copy of the T.N.B.P. (or the Sub–Divisional Office copy if so arranged by the Executive Engineer) as evidence that he understands clearly the conditions of contract governing his agreement and accepts the same.

3.2 It shall not be necessary for the contractors to sign the Divisional office copy of he T.N.B.P. for every contract awarded to him, but his signature therein will be evidence that he

accepts the conditions of contract (which include the

specifications) as detailed in the T.N.B.P. for every contract into which he enters. It shall also be the contractor's responsibility by frequent perusal of the Divisional Office (or the Sub Divisional Office) copy to become conversant with sanctioned alterations or additions made to the T.N.B.P. as soon as they are made. A separate volume of addenda to the T.N.B.P. will be maintained in each Division (or sub division office) as the case may be, in which will be entered all sanctioned corrections and additions. This must also be studied and signed by every contractor before executing an agreement. Interleaving corrections slips will not be made for this purpose. The .contractor should purchase copy of the T.N.B.P. for his reference while executing work.

### 4. Sub-specifications

4.1 Works of similar nature having many common clauses in their specifications are grouped under one specification number with a "General" preface thereto and the sub-specifications are therefore given an alphabetical affix.

5. Additions and alterations to the T.N.B.P.

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

5.1 Additions and alterations to the T.N.B.P. will be incorporated in the addenda volume as authorized by the Chief Engineer.

# 6. Power of Superintending Engineer and Executive Engineers to supplement or alter the T.N.B.P.

6.1 Superintending Engineer and Executive Engineer may alter the specification for any particular contract which is within their respective power of sanction, when such alteration is found necessary by attachment of a correction sheet to the contract form, bearing the T.N.B.P. number, the corrections and the signature of the Superintending Engineer or the Executive Engineer as the case may be, together with the signature of the contractor. Similarly additional specifications for items for which there are no standard specifications will be made by attachment to the contract documents of addendum specifications sheets bearing the signature of the Superintending or the Executive Engineer as the case may be and the signature of the contractor.

### A-1. DEFINITIONS AND INTERPRETATIONS

### 7. Definition of terms

7.1 Wherever the words and expressions defined in this clause or pronouns used in their stead occur in contract documents (which includes the T.N.B.P) they shall have the meanings hereby assigned to them except where the context otherwise requires :

a) "Executive Engineer" means the Executive Engineer for the time being in charge of the concerned work under execution or such other departmental assistants or subordinates to whom the Executive Engineer may have delegated certain duties, acting severally within the scope of the particular duty entrusted to them.

# b) No delegation by Executive Engineer which affects agreements

it is however, to be distinctly understood that the Executive Engineer or the Superintending Engineer or the higher authority who is vested with the powers of acceptance of the particular agreement under reference will make no delegation of powers to such assistants or subordinates with in any way affects the agreement and its contract condition when such agreement is to be or has been accepted by the Executive Engineer or by the other higher authority respectively. The duties of such assistants or subordinates will be solely duties of supervision to ensure compliance with contract conditions.

c) "Contractor means the particular persons firm or corporation with whom an agreement has been made by the Executive Engineer or higher authority as the case may be, for executing work defined in the concerned agreement and for purpose of instructions regarding compliance with contract conditions, it shall include the contractor's authorized agent, who is maintained on the work by the contractor.

d) Works or work means the works by or by virtue of the contractor contracted to be executed whether temporary or permanent and whether original, altered substituted or additional or connected with the supply repairs or carriage of tools and plant and supply of manufacture of other stores.

*7.2* Works importing the singular only also include the plural and vice-versa where the context requires.

NOTE: The terms section officer, Assistant Executive Engineer, Executive Engineer, Superintending Engineer and Chief Engineer, used in the following clauses shall where the context so requires, be construed as also including officers of the corresponding grade in the Highways and Rural Works Department.

### 8. Evidence of Experience

Tenderers shall, if required, present satisfactory evidence to the Executive Engineer that they have been regularly engaged in constructing such works, as they propose to execute and that they are fully prepared with the necessary capital, machinery and materials to begin the work promptly and to conduct it as required by T.N.B.P. and the other specifications for the particular work if tendered for, in the event of their tender being accepted.

### 9. Legal address Notices

9.1 Tenderers should give in their tender their place of residence and postal address. The delivering at the above named place or posting in a post box regularly maintained by the Post Office Department or sending by letter registered for acknowledgement of any notice, letter or other communication to the contractor shall be deemed sufficient service thereof

upon the contractor in writing as may be changed at any time by an instrument executed by the contractor, and delivered to the Executive Engineer.

9.2 Nothing contained in the agreement and its contract conditions shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon the contractor personally.

# B. STATEMENT OF APPROXIMATE QUANTITIES IN SCHEDULE – A

10.1 The quantities mentioned in tender notices and in agreement schedule – A, are worked out from the relevant drawing in office and may or may not be the actuals required for execution. The Executive Engineer does not be the expressly or by implication agree that the actual amount of work to be done will correspond therewith but reserves the right to increase or decrease the quantity of any class or portion of the work as he deems necessary.

102 Tenderers must satisfy themselves by a personal examination of the site of the proposed work, by examination of the plans and specifications and by others means as they prefer as to the accuracy and sufficiency of the statement of quantities and ail conditions affecting the work and shall not at any time after the submission of their tender, dispute or complain of such statement of' quantities or assert, that there was any misunderstanding in regard to the nature or amount of the work to be done nor in consequence apply for extension of time for completion beyond the agreement date.

# 11. Approximate not to mean deviation from drawings and specification

11.1 This declaration of the approximate, nature of the statement of quantities in Schedule. A does not, however, in any way imply that the quantities will be increased for departure by the contractor from strict compliance with sanctioned drawings and specifications to suit his own convenience or reduce his costs.

### 12. To compare tenders

12.1 The quantities in Schedule – A are given for a uniform comparison of lump-sum tenders.

Contractor

### 13. Purpose

13.1 The contract drawing if any, 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.

## 14. Conformance

14.1 The works shall be carried out in accordance with the drawings and specifications which form part of the contract and in accordance with such further drawings, details and instructions, supplementing or explaining the same as may from time to time be given by the Executive Engineer.

14.2 If the work shown on any such further drawings or details, or other work necessary to comply with any such instructions, directions, or explanations, be in the opinion of the contractor, of a nature which the schedule rate in the contract does not legitimately cover he shall before proceeding with such work, give notice in writing to this effect to the Executive Engineer and contractor failing to agree as to whether or not there is any excess rate to be fixed and the Executive Engineer deciding that the contractor is to carry out the said work, the contractor shall accordingly do so, and die question whether or not there is any excess and if so the amount there of, shall failing agreement, be settled by an arbitrator as provided in the arbitration clause, unless the subject is one which is left to the sole discretion of the Executive Engineer under the clauses of these conditions of contract and the contractor shall be paid accordingly."

14.3 It shall be the responsibility of the contractor to give timely notice to the Executive Engineer regarding anything shown on the drawings and not mentioned in the specification, or mentioned in the specifications and not shown in the drawings or any error or discrepancy in drawings or specifications and obtain his orders there on. Figure dimensions are to be taken and not those obtained from scaling the drawings. In any discrepancy between drawings and specifications, the contractor shall forthwith apply to the Executive Engineer for such further instructions, drawings or specifications as he requires it, being understood that the subject to be dealt with under the building procedure of best

modern practice. The Executive Engineer will furnish instructions, drawings or specifications if in his opinion, they are required by competent workmen, for the proper execution of the work.

### 15. Variations by way of modifications, omissions or additions.

15.1 For all modification, omissions from or additions to the drawings and specification, the Executive Engineer will issue revised plans, or written instructions or both and no modification, omissions or additions shall be made unless so authorised and directed by the Executive Engineer in writing.

15.2 The Executive Engineer shall have the privilege of ordering modifications, omissions or additions at any time before the completion of the work and such orders shall not operate to annual those portions of the specifications with which said changes do not conflict.

15.3 The contractor shall submit to the Executive Engineer a statement giving details of the claims for any additional work within 30 days of the work and no claim for any such work will be considered which has not been included in the statement.

## 16. Copies of Drawing and Specifications

16.1 One copy of the available drawings and specifications (apart from the T.N.B.P. a copy of which the contractor should purchase for his reference) shall be furnished free of cost to the contractor for his own use. Such copies of supplementary details furnished by the Executive Engineer shall be kept by the contractor on the work until the completion thereof, and the Executive Engineer shall at all times have access to them.

## 17. Signed drawing - No authority to the Contractor

17.1 No signed drawing shall be taken as in itself an order for variation, unless either it is entered in the agreement schedule of drawings under proper attestation of the contractor and the Executive Engineer or unless it has been sent to contractor by the Executive Engineer, with a covering letter confirming that the drawing is an authority variation of the contract under reference.

## D. MATERIALS AND WORKMANSHIP

### 18. To be the best quality

18.1 All materials, articles and workmanship shall be the best of their respective kind for the class of work described in the contract specification and schedule materials being obtained from sources approved by the Executive Engineer. The word "best" as used in these specifications shall mean, that in the opinion of the Executive Engineer there is no other superior quality of materials or finish of articles on the market and that there is no better class of workmanship available for the nature of the particular item described in the contract

schedule. The contractor shall, upon the request of the Executive Engineer, furnish him with the vouchers to prove that the materials are such as are specified.

18.2 Samples of materials shall be furnished at the contractor's expense to the Executive Engineer when called for in the tender notice or ordered to be furnished by the Executive Engineer prior to execution of any work.
19. Conversion for proportions

19.1 Wherever the proportions are written by figures without further description and where the meaning is otherwise clear as to which figure is intended to apply to each material, then the usual conventions will be understood to apply.

For example,

1:2 Means 1 lime (or cement in accordance with the context) and 2 sand.

1:2:4 Means 1 lime (or cement in accordance with the context) 2 sand 4 broken stone (or other aggregate in accordance with the context).

### 20. Measurement arid mixing

20.1 In the case of loose materials such as lime sand, cement, broken stone, surki, mortar, etc. the proportions demanded by the specifications must be measured in properly constructed measuring boxes or weighed or in such other manner as shall be instructed by the Executive Engineer. Measurement is not to be done in loose heaps when intimate mixtures such as mortar concrete, etc., are to be formed. The mixing must always

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03. 76

be done on closely constructed platform so that there will be no leakage of any of the materials through the floor of the platform and also that no foreign materials can be incorporated during the mixing. These platforms must be approved by the Executive Engineer. The cost of such measuring boxes and platforms and all the work referred to herein shall be borne by the contractor.

# 21. Data

21.1 The materials and labour utilised in the execution of work by the contractor shall not be less then that given in the Tamilnadu P.W.D Standard Data for the relevant item.

NOTE In case the contractor considers that the materials and labour provided in the T.N.P. W.D Standard data for the execution of particular items of work are in excess, the contractor may furnish detailed data for such items along with tender with reasons for variations form P.W.D Standard Data.

### 22. Layout of materials stacks

22.1 The contractor shall deposit materials for the purpose of the work on such parts only on the ground as may be approved by the Executive Engineer. He shall submit for the approval of the Executive Engineer before starting work, a detailed site survey clearly indicating positions and areas where materials shall be stacked and sheds built.

23. Source of purchase of materials and stores

23.1 The Executive Engineer shall, during the progress of the work, have power to cause the contractor to purchase and use such materials or supplies from Government brick fields, stores or other sources as may be specified in the contract for the purpose therein specified.

# 24. Contractor liable for materials supplied by Government

24.1 The contractor shall be responsible for all materials and other articles and things which may be supplied by Government from the time he takes delivery thereof and shall make good any loss, damage wastage or undue wear and tear that may take place form whatever cause and pay to Government for such loss, damage, wastage or undue wear and tear such sum as the Executive Engineer may determine.

Contractor

242 If at any time subsequent to the execution of the agreement Government materials other than those specified in the Agreement are to be supplied to the contractor for use on work they will be charged at the market value prevailing at the time of supply or stock issue rate which – ever is greater. The contractor will be informed in writing the rate which he demands for finished work in view of the fact that he is to use Government materials.

243 Deleted..

# 25. Test inspection and rejection of defective materials and works

25.1 The contractor shall provide proper facilities at all times for the testing of materials and inspection of the work by the Executive Engineer, and the Executive Engineer shall accordingly also have access at all times to the places of storage or manufacture where materials are being made for use under the contract to determine that manufacture is proceeding in accordance with the drawings and specifications.

252 The contractor shall, upon demand, also forward for the Executive Engineer's inspection test certificate supplied by the vendors, when he is purchasing consignments of cement, steel and other materials in respect of which certificates are usually available.

253 The Executive Engineer shall have power to reject at any stage, any work which he considers to be defective in quality of materials or workmanship and he shall not be debarred from rejecting wrought materials by reasons of his having previously passed them in an un worked condition. Any portion of the work or materials rejected or pronounced to be inferior or not in accordance with the drawing and specification, shall be taken down and removed from the work site at the contractor's expense, within 24 hours after written instructions to the effect have been given by the Executive Engineer. Replacement shall at once be made in accordance %with the specifications and drawings at the contractors expense.

25.4 In case of default on the part of the contractor to carry out such orders the Executive Engineer shall have power to employ and pay other persons to carry out the orders at the contractors risk and all expenses consequent thereon incidental

thereto shall be borne by the contractor.

25.5 In lieu of rejecting work **not** done in accordance with the contract, the Executive Engineer may allow such work to remain, and in that case shall make such allowance for the difference in value, as in his opinion may be reasonable.

25.6 Works opened for inspection:- The contractor shall, at the request of the Executive Engineer, within such time as the Executive Engineer shall **name**, open for inspection any work covered up and should the contractor refuse or neglect to comply with such a request the Executive Engineer may employ other workmen to open up the same. If the said work has been covered up in contravention of the Executive Engineer's instructions or if on being opened up, it be found not in accordance with drawings and specifications or the written instructions of the Executive Engineer the expenses of opening it and covering it up again whether done by or recovered from the contractor. If the work has not been covered up in contravention of such instructions or if on being opened up it be found to be in accordance with the drawings and specifications or the written instructions of the Executive Engineer, the expenses aforesaid shall be borne by Government and shall be added to the contract sum, provided always that in the case of foundations, or any other urgent works so opened up and requiring immediate attention the Executive Engineer shall, within reasonable time after the receipt of a notice from the contractor that the work has been opened, make or cause the inspection there of to be made, and at the expiration of such time if such inspection shall not have been made, the contractor may cover up the same, and shall hot be required to open it up again for inspection except at the expense of

Government.

### 26. Defects, shrinkages, etc, after completion

26.1 Any defects, shrinkage or other faults which may apear within six months from the completion of the works arising, in the opinion of the Executive Engineer from faulty materials or workmanship not in accordance with the drawings and specification or the instructions of the Executive Engineer shall, upon the directions in writing of the Executive Engineer and within such reasonable time as shall be specified them, be amended and made good by the contractor at his own cost, unless the Executive Engineer shall decide that the contractor

Contractor

ought to be paid for the same at the rates agreed on such reduced or other rates, as the Executive Engineer may fix and incase of default, the Executive Engineer may employ and pay other persons to amend and make good such defects, shrinkage or other faults or damage, and all expenses consequent thereon and incidental thereto shall be borne by the contractor.

26.1 (A) The shrinkage period of six months referred to in main clause 26.1 above, will be five years in respect of all contracts for construction of original buildings either semi permanent or permanent to ensure structural stability of the building.

#### (G.O.Ms. No. 181 PWD 28.1.86)

26.2 Provided that in the event of Government taking over portions of the works as and when they are completed the liability of the contractor under this clause shall extend to a period of six months (or five years as the case may be) from the date of final taking over the of the work irrespective of the actual dates on which portion of the works were taken over.

### 27. Executive Engineer's Decision

27.1 To prevent disputes and litigation, it shall be accepted as an inseparable part of the contract that in matters regarding materials workmanship, removal of improper work, interpretation of the contact drawings and contract specifications, mode of procedure and the carrying out of the work, the decision of the Executive Engineer shall be final and binding on the contractor and in any technical question which may arise touching the contract, the Executive Engineer's decision shall be final and conclusive.

## 28. Dismissal of workmen

28.1 The contractor shall employ in and about the execution of the works only such persons as are careful, skilled and experienced in their several trades and callings and the Executive Engineer shall be at liberty to object to and request the contractor to remove from the works any person employed by the contractor in or about the execution of the works who in the opinion of the Executive Engineer misconducts himself or incompetent or negligent in the proper performance of his duties and such persons shall not be again employed upon the works without the permission of the Executive Engineer.

### D.1 GENERAL OBLIGATIONS

# 29. Contractor's maistri or agent and contractor's staff

- 29.1 The contractor shall in his own absence keep constantly on the works a competent maistry or agent and any directions or explanations given by the Executive Engineer or his representatives to such maistry or agent shall be held to have been given to the contractor.
- 29.2 The contractor shall further provide all staff which is necessary for the proper supervision, execution and measurement of the work to ensure full compliance with the terms of the contract.

#### 30. Government Maistries or agents

30.1 The Government may be represented oh the work by an agent clerk of the works, or Maistry who is not borne on the official or officers and subordinates of the P.W.D. or Highways and Rural Works Department. He (if appointed) shall, in the absence of the Executive Engineer, furnish the contractor with the Executive Engineer's or his representative's instructions of the works and the contractor shall duly comply with such instructions and directions to the progress and execution of the works and the contractor shall duly comply with such instructions and directions and shall on the written requisition of the maistry clerks of works or agent, stay the further progress of any portion of the works which in his judgement is being constructed with unsound or improper material or workmanship, until the opinion and determination of the Executive Engineer shall be obtained thereon, but such maistry clerk of works or agent is to have no power whatever to order any extra works or deviation from the specifications and drawings.

### E. INCLUDED IN CONTRACT RATES

3.1 Defining contract schedule rates

31.1 The rate entered in a contract schedule for any class of work shall be for finished work in situ and shall include all contingent expenses whether direct construction expenses involved in the building in place in accordance with the drawings and specifications or whether they he expenses imposed by an outside authority such as local body. Such contingent expenses shall not entitle the contractor to claim an extra in respect thereof.

### 32. Carriage

32.1 Rates for finished work shall always include the cost of conveyance and all leads, lifts, loading unloading and stacking in the manner and at the place ordered by the officer in immediate charge of the work, unless circumstances necessity provisions for a separate schedule item, in which case for such will be specified in the tender notice or schedule.

322 Wherever the term "carriage" of "conveyance" is used in a schedule item, it shall in the absence of other schedule provisions or modifying description in the specification, be taken to include all leads, lifts loading, unloading and stacking in uniform stacks to the satisfaction of the Executive Engineer with careful attention to close packing in case of materials which are to be measured in stacks as a basis of payment for finished work.

*NOTE 1:* In the case of important leads and lifts as may occur in river conservancy and other such works where lifts over flood banks and long leads may be involved, it is usual to make separate schedule item provision with a specification defining the exact work to be done for each tendered rate.

*NOTE 2*: Payment for carriage will ordinarily be by bulk for weight at a rate between specified place and on the basis of the method adopted in the standard schedule of rates for carriage of materials. The distances will be measured by the nearest practicable and cheapest routes, whether metalled or unmetalled road or cart track.

32.3 When cart or vehicles of any sort are engaged by the day, the quantity of materials to be conveyed, the distance to be travelled and the number of trips to be made shall, if he considers necessary be fixed by the Executive Engineer.

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

32.4 The contractor is responsible for making good all loss in transporting materials entrusted to him or his agents, whether caused by wastage, breakage, theft or any other cause.

325. No payments shall, in any case, be made for the return trips with carts empty. Where there are loads also for the return trip the agreement rates should allow for the reduced cost thereby on each set of materials so conveyed.

33. Constructions plant

33.1 The contractor shall include in his tendered price and shall provide and install all necessary construction plant and shall use such methods and appliances for the performance of all the operations connected with the work embraced under the contract as will secure a satisfactory quality of work and rate of progress which in the opinion of the Executive Engineer will ensure the completion of the work within the time specified. If

at any time before the commencement, or during the progress of the work, or any part of it such methods or appliances appear to the Executive Engineer to be insufficient or inappropriate for securing the quality of the work required or the said rate of progress, he may order the contractor to increase their efficiency or to improve their character, and the contractor shall comply with such orders, but the failure of the Executive Engineer to demands such increase of efficiency or improvement shall not relieve the contractor from his obligation to secure the quality of work and the rate of progress required by the contract and the contractor alone shall be responsible for the efficiency and safety of his plant, appliances and methods.

33.2 It is however, open to Executive Engineer to lend or supply to the contractor any tools, implements, materials and machinery that the Executive Engineer may consider desirable but for any such tools, implements, materials and machinery that may be lent or supplied to contractor by Government, the contractor shall pay such deposit and hire, or purchase price

as may be determined by the Executive Engineer. All articles that may be so lent or hired to the contractor

shall be returned in good serviceable condition by him to the Executive Engineer before the final bill for work is paid and any shortage or damage shall be recovered from the contractor in the final bill at such rate as may be determined by the Executive Engineer after making such allowance as he may consider suitable for fan- wear and tear.

80

### 34. Scaffolding instructions

34. All requisite scaffolding shall be provided at the contractor's expense and shall be double, i.e. it must have two sets of upright supports. Care must be taken to ensure the safety of the work people and the contractor must comply with such instructions as the Executive may issue to ensure such safety. The contractor will be entirely responsible for any damage or injuries to persons or property resulting from ill erected scaffolding, defective ladders, or otherwise arising out of his default in this respect. The contractor's attention also invited to the "safety code"

### 35. Temporary structure

35.1 The Contractor shall erect and maintain at his own cost temporary weather proof sheds at such places and in a manner

approved by the Executive Engineer for keeping materials under cover. The contractor shall also provide and maintain at his won expenses such temporary fences, guards, bridges and roads as may be necessary for the execution of his contract work or for safeguarding or accommodating the public. If the Executive Engineer shall order any departure from the arrangements made of the contractor, the contractor shall comply with such orders as the Executive Engineer may issue to safeguard or accommodate the public Sheds for housing workmen shall be provided at the contractor's expense if, in the opinion of the Executive Engineer, such are necessary or desirable,

### 36. Water and Lighting

36.1 The contractor shall pay all fees and provide water and light as required from municipal mains or other sources and shall pay all charges therefore (including storage tanks, meters, etc) for the use of the work and workmen unless otherwise arranged and decided on in writing with the E.E. The water for the works shall be, so far as practicable, free from earthy

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

vegetable, or organic matter and from salts or other substances likely to interfere with the setting of mortar or otherwise prove harmful to the work.

## 37. Sun protection keeping dry and pumping

37.1 The contractor shall at his own expense arrange all requisite protection of the work and materials against sun or rain effects and shall keep all portions of the work free from water to the satisfaction of the Executive Engineer and shall use his own plant for the purpose unless otherwise specifically provided in the contract specification.

## 38. Tools and Seignior age

38.1 The contractor shall, unless otherwise specifically stated in the tender notice and subsequently on this basis in the contract be responsible for the payment wherever payable of all import duties, tolls, octroi duties, seignior ages, quarry fees, etc. on all materials and articles that he may use.

382, The contractor shall be solely responsible for the payment of sales tax under the provision of Madras General Sales Tax Act 1939 (Madras Act IX of 1939) as in force for time being and the rates for the various items of the work shall remain unaffected by any change that may be made from time to time in the rate at which such tax is payable.

38.3Notwithstanding anything's contained in section 10 of the Indian Traffic Act, of 1894, the rates for items involving, the use or supply of articles obtained' by the contractor from outside India shall remain unaffected by any changes that may be introduced in Customs duties.

NOTE : For works carried out on behalf of the Government of India, Seignior age fees, etc, referred to in this clause will have to be levied in every case.

38.4No seignior age shall be charged where due for materials quarried from the P.W.D. or other Government quarries Assistance as necessary will be given to the contractor by the department to obtain access to quarries approved by the Executive Engineer. No plot rent shall be charged for materials stacked on the Government lands during the course of construction provided all such materials are removed within one month after the work is completed. 38.6 The contractor shall form his own approach road to the worksite for which no extra will be due to him. On completion the contractor shall not be permitted to remove the materials laid for formation of road. If the contractor is allowed to use the existing roads he shall maintain them in good condition at his own cost through out the period of the contract.

### 39. Setting out works

39.1 The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of the works and for the provision of all materials, staff and labour in connection therewith.

## 40. Cleaning up during progress and for delivery

40.1 All rubbish shall be burnt or removed from the site, as it accumulates. All floors, stairs, landing windows, surface and soil drains shall be cleaned down and put in a thoroughly complete clean, sound and workman like state to the satisfaction of the Executive Engineer before the work is finally handed over all rubbish and surplus materials not required by the Executive Engineer having first been removed by the Contractor. The contractor shall be give notice in writing to the Executive Engineer when the work is so ready to be handed over and shall be responsible for its maintenance until it is taken over by the Executive Engineer.

# F. RESPONSIBILITIES AND LIABILITIES OF THE CONTRACTOR

# **41. Observance of laws, local regulations and notices,** Attachments

**41.1** The contractor shall confirm to the regulations and bylaws of any local authority and or of any water or lighting companies with those systems the structure is proposed to be connected and shall before making any variations from the

drawings and specification that may be necessitated by so confirming, give to the Executive Engineer written notice., specifying the variations proposed to be made and the reasons for making them and apply for instructions, thereon. In case the contractor shall not received such instruction within seven days, he shall proceed with the work confirming to the provisions regulating or by–law in question and variation in the drawing or specifications so necessitated shall be dealt with under clause 59.

41.2 The contractor shall give all notices required by the said Act, regulations or by-laws and pay all fees in connection therewith unless otherwise arranged and decided on in writing with the Executive Engineer. He shall also ensure that no attachments are made against materials of work forming part of or for the use of the contract. In every case referred to in this clause the contractor shall protect and indemnity Government against any claim or Liability arising from or based on the violation of any such law, ordinance, regulation order, decree, or attachment whether by himself or by his employees.

# 42. Accidents - Hoarding - Lighting Observations - Watchmen

- 42.1 When excavations have been made or obstacles have been put in public thorough fares or in places where there is any like hood of accidents, the contractor shall comply with any requirement of law on the subject and shall provide suitable hoarding lighting and watchmen as necessary.
- 42.2 It shall be contractor's sole responsibility to protect the public and his employees against accident from any cause and he shall indemnify Government against any claims for damages for injury to person or property, resulting from any such accident and shall where the provisions of the Workmen's Compensation Act apply take steps to properly insure against any claims there under.
- 42.3 On the occurrence of accident which results in the death of any of the workmen employed by the contractor or which so serious as to be likely to result in the death of any such workmen, the contractor

shall within 24 hours of the happening of such accident, intimate in writing to the concerned section officer of Department the fact of such accident. The contractor shall indemnify Government against all loss or damage sustained by government resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties of fines if any payable by Government as a consequence of Government's failure to give notice under the Workmen's Compensation Act or otherwise confirm to the provisions of the said Act in regard to such accident.

42.4 In the event of an accident in respect of which compensation may become payable under the Workmen's Compensation Act VIII of the 1923 whether by the contractor or by the Government as principal it shall be lawful for the Executive Engineer to retain out of money due and payable to the contractor such sum or sums of money as may, in the opinion of the said Executive Engineer be sufficient to meet

such liability. The opinion of the Executive Engineer shall be final in regard to all matters arising under this clause.

42.5 The contractor shall indemnify Government from and against all claims and proceedings for or on account of infringement of any patent rights, design, trade mark, or name or other protected rights in respect of any constructional plant, machine work or materials used for or in connection with the works or temporary works, or any of them and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof in relation thereto.

42.6 In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all the rules framed by the Government from time to time for the provision of health and sanitary arrangements to workers employed by P.W.D. and Highways and Rural Works Department and their contractors (vide appendix) In case the contractor fails to make arrangements

and provide necessary facilities as aforesaid the Executive Engineer shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in **that** behalf from the contractor.

> 42.7 In respect of all labour directly or indirectly Employed in the works for the performance of the contractor's part of this agreement, the contractor at his own expense shall arrange for the safety provisions as per "Safety Code" framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangements and provide facilities as aforesaid the Executive Engineer shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

> 42.8 In respect of all labour directly or indirectly employed in the work for the performance of the contractors part of this agreement the contractor shall arrange to furnish in triplicate particulars for each work in the proforma Vide Appendix XXXVIII by the end every month to the Executive Engineer in charge of the work.

## 43. Blasting

43.1 Blasting executed by contractors in connection with Government works shall be carried out in the manner described under "Blasting operation – Instructions to Contractor" of the TNBP.

### 44. Protection of Existing and Adjoining premises

44. The contractor is to protect the whole of the adjoining and where necessary, the existing premises and all works and all fittings to all buildings on and adjoining the site against the structural and decorative damages caused by the execution of these works and make good in all respects all such damage done or occuring to the same, and leave such reinstatement in perfect order. He is also to make good any damage done in the execution of the work to existing public or to private footways or roadways.

45. Permit other workmen - Co-operation - Afford Facilities

Contractor

45.1 The Executive Engineer shall have full power to send workmen upon the premises to execute fittings and other works not included in the contact, for whose operations the contractor is to afford every reasonable facility during ordinary working hours, provided that such operations shall. be carried on in such a manner as not to impede the progress of the work included in the contract, but the contractor is not to be responsible for any damage which may happen to or be occasioned by any such fittings or other works, provided he complies with the Executive Engineer's instructions in connections therewith, and provided that the damage is not caused by himself or his workmen.

452 The contractor shall, at all times co-operate assist, attend on, and afford facilities for such specialists as maybe employed by the Executive Engineer on other works in connection with the building, allowing them free of charge the use of all plant, light and water installed in the works. The contractor shall also cause such special work or protect it as instructed to avoid injury during progress of the works. For failure so to protect, the contractor must make good any damage caused.

45.3 When two or more contractors are engaged on installation or construction work in the same vicinity the Executive Engineer shall have authority to direct the manner in which each shall conduct the work so far as it affects other contractors.

# 46. Holes for water services, gas electrical and sanitary fittings

46.1 The contractor shall leave all holes in masonry and floors for the insertion of water services, gas and electrical connections and sanitary fittings in the exact positions indicated by the Executive Engineer during the progress of work. These holes must be properly built up in a workman like manner at the contractor's cost, as soon as the fittings have been installed in cases, where the installations are made during the constructions of the building and where in the opinion of the Executive Engineer, delays in settlement of accounts will not thereby occur.

47. Contract's risk and insurance.

47.1 The work executed by the contractor under the contract shall be maintained at the contractor's risk until the work is taken over by the Executive Engineer. The Govt. shall not be liable to pay for any loss or damages occasioned by or arising out of fire, flood, volcanic eruption, earth quake or other convulsions of nature and all other natural calamities and risks arising out of acts of God during such period and the option whether to take insurance coverage or not to cover and such loss or damages is left to the contractor.

47.2 Provided however, that the contractor, shall not be liable for all or any loss or damages occasioned by or arising out of acts of foreign enemies invasions hostilities or warlike operations (before or after declaration of war) rebellion military or usurped power.

#### 48. Holidays

48.1 Subject to any provision to the contrary contained in the contract name of the permanent work shall save as hereinafter provided be carried on during the night or on Sundays and other holidays without the permission in writing of the Executive Engineer or of the officer in-charge of the work, save when the work is unavoidable or absolutely necessary for the safety of life or property or for the safety of the works in which case the contractor shall immediately advise the Executive Engineer.

## 6. MISCELLANEOUS

### 49. Sand and Gravel

49.1 The contractor shall not make any excavations upon the site for the purpose of obtaining gravel, sand or soil other than that shown or implied by the drawings, except with the previous permission of the Executive Engineer.

50. Old Curiosities

50.1 All old curiosities, relics, coins, mineral, etc., found in excavating or pulling down, shall be the property of the Government and be handed over to the Executive Engineer. Should any ancient masonry, or other old work of interest be opened up the Executive Engineer's attention shall be called to the same before demolition or removal.

### 51. Assignment or sub-letting

Contractor

51.1. The contractor shall not without the written consent of the Executive Engineer assign the contract nor sub-let any portion of the same. Ordinarily no sub-letting will be permitted, but in case such should be permitted by the Executive Engineer, it shall in no way free the contractor from any of responsibilities under any clause of these "Conditions of Contract" or of the "Articles of Agreement"

#### 52. Specialists

52.1 The Executive Engineer shall, during the progress of the work have powers to select, nominate or recommend tradesmen or specialists to supply material or execute such portion of the work as he may consider desirable in the interests of the Government.

# 53. Ratification of the orders of the Executive Engineer

53.1 Should the acceptance of the tenders be beyond the authorised powers of the Executive Engineer as laid down the P.W.D. code, the orders and decisions of such Executive Engineer with regard to extension of time for completing the contract will be subject to the ratification of the Superintending Engineer for all works for which tenders were accepted by the Engineers of Public Works Department including Superintending Engineer, Chief Engineer / Board of Engineers and Government and the termination of contract or of employment of specialists for certain portion of the works will be subject to the satification of the Chief Engineer for all works for which tenders were accepted by Engineers of PWD including Superintending Engineer/Chief Engineer/Board of Engineers and Government.

### 54. Order Book

54.1 An order book shall be kept at the P.W.D. Office on the site of the work. As far as possible, all orders regarding the work are to be entered in this book. All entries shall be signed and dated by the P.W.D. Officer in direct charge of the work and by the contractor or by his representative. In important cases, the Executive Engineer or the Superintending Engineer will countersign the entries, which have been made. The order book shall not be removed from the work except with the written permission of the Executive Engineer.

542 No photographs of the site or of the work or any part thereof shall be taken except with the permission in writing of the Executive Engineer and no such photographs shall be published or otherwise circulated without the permission of the Chief Engineer.

# H. DATE OF COMMENCEMENT, COMPLETION, DELAYS, EXTENSION, SUSPENSION OF WORK AND FORFEITURE

## 55. Date of commencement and completion

55.1 On notification of possession of the site (or premises) being given to the contractor by letter registered for acknowledgement as provided in clause 9.1 supra, he shall forthwith begin the work, shall regularly and continuously proceed with them, and shall complete the same (except for painting or other work which, in the opinion, of the Executive Engineer, it may be desirable to delay) by the date of completion, as defined in the "Articles of Agreement" subject nevertheless, to the provisions of extension of time mentioned in the next clause. The contractor shall under no circumstances be entitled to claim any damages from Government if he incurs any expenses or liabilities to payment under the contract before the date of commencement defined above. The contractor shall have the right to withdraw from the contract and obtain refund of his security deposit if such intimation of handing over the site is delayed by more than two months from the date of acceptance of the agreement by competent authority.

#### 56. Delays and extension of time

56.1 No claim for compensation on account of delays or hindrances to the work from any cause whatever shall tie except as hereinafter defined.

Reasonable extension of time will be allowed by the Executive Engineer or by the officer competent to sanction the extension for unavoidable delays, such as may result from causes which in the opinion of the Executive Engineer are undoubtedly beyond the control of the contractor. The Executive Engineer shall assess the period of delay or hindrance caused by any written instruction issued by him at twenty five percent in excess of the actual working period so

Contractor

lost. If at any time the Executive Engineer is of the opinion that there has been avoidable delays and the contractor fails to maintain the rate of progress specified in the articles of agreement, it shall be lawful for the Executive Engineer to impose penalty or order forfeiture from the Deposit and sanction the extension of time for such delays, provided however, the penalty and forfeiture shall be governed as per clause 57.2 and 57.3

56.2 In the event of the Executive Engineer failing to issue necessary instructions and thereby causing delay and hindrance to the contractor the latter shall have the right to claim an assessment of such delay by the Superintending Engineer of the Circle. The contractor shall lodge in writing to the Executive Engineer a statement of claim for any delay or hindrance referred to above within fourteen days from its commencement otherwise no extension of time will be allowed. 56.3 Whenever, authorized alterations or additions made during the progress of the work are of such nature in the opinion of the Executive Engineer as to justify an extention of time in consequence thereof such extension of time will be granted in writing by the Executive Engineer or other competent authority when ordering such alterations or additions.

57. Delays in commencement or progress or neglect of work or suspension of works by the contractor and forfeiture of Earnest Money, Security Deposit and withheld amount

57.1 Time shall be considered as the essence of the contract. If at any time the Executive Engineer shall be of the opinion that contractor is delaying commencement of the work neglecting or delaying the progress of work as defined in the tabular statement, "Rate of Progress" in the Articles of Agreement or the contractor fails to maintain the Rate of progress in the Articles of Agreement plus any extension of time or the contractor shall suspend the works, or sublet the work or a portion thereof without the sanction of the Executive Engineer or violates any of the provisions of the contract the Executive Engineer shall so advise the contractor and at the same time demand compliance. If the contractor neglects to comply with such demand within seven days after receipt of such notice, it shall then or at any time be lawful for the Executive Engineer to impose a penalty or forfeiture on this contractor from the deposit or to determine the contract.

- 572 The penalty or forfeiture referred to in Clause 57. I shall not exceed 5% of the value of work executed and is imposed in cases where the contractor is allowed to proceed with the whole or part and complete the whole or such part of the works. The penalty or forfeiture imposed by the Executive Engineer under this clause is however subject to modification or waiver at the absolute discretion of any authority higher in rank than the Executive Engineer.
- 573 It shall be a further right of the Executive Engineer to give any part of the work to any other contractor at his discretion or have it done departmentally in order to maintain the rate of progress and the contract shall then be determined for only that portion of the work given to the other contractor or done departmentally. The forfeiture under clause 57.2 will in these circumstances be applied and any excess expenditure incurred on this account shall be recovered from the original contractor.

57.4 Determination of the contract referred to in Clause 57.1 shall carry with it the forfeiture of the Security Deposit. After determining the contract, the Executive Engineer shall have the right to give any part of the work to any other contractor in the unexecuted portion of contract, in which case any expenses which may be incurred in–excess of such amount which would

have been paid to the original contractor if the whole work had been executed by him shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under this contract or any other amount what so ever Provided also that if the expenses incurred by the government are less than the amount payable to the contractor at his agreement rate the difference will not be paid to the contractor.

57.5 In the event of anyone of the above clauses being adopted by the Executive Engineer, the contractor shall have no compensation for any loss sustained by him by reason of his having purchased or processed any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of contract, and in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to be paid any sum for any work actually performed under the contract unless and until the Executive Engineer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

57.6 In the event of the Executive Engineer putting in force all or any of the powers vested in him under the clause 57.4 he may if he so desires after giving a notice in writing to the Contractor take possession of the works and site and all plant and materials thereon (or any ground contiguous there to) and all such plant and materials as above mentioned shall thereupon be at the .disposal of Government absolutely for the purpose of completing the work. After such notices shall have been given the contractor shall not be at liberty to remove from the site of works or from the around contiguous thereto any plant or materials belonging to him which shall have been placed thereon for the purpose of the above work. Government shall not be liable to make any payment to the contractor on account of use of such plant for the completion of the works under the provisions herein before contained. On taking possession of the materials and stores belonging to the contractor or procured by the contractor and intended to be used for the execution of the work or any part thereof the contractor shall be paid for the same in account. at the contract rates, to be certified there of shall be final. Otherwise the Government may give notice in writing to the contractor to

remove any of his plant or materials from the site and not required for completion of the works, if such plant and materials are not removed with fourteen days after notice and have been so given, Government may remove and sell the same holding the proceeds less the cost of removal and sale, to the credit of the contractor. The certificate of the Executive Engineer as to expense of any such removal and sale shall be final and binding on the contractor.

### 1. PARTICULARS OF PAYMENT

58. Payment on lump sum basis or by final measurement in unit prices

58.1 Final measurements need not be taken unless

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

either the contractor or the Executive Engineer claims extras to or deductions from the quantities of schedule – A. In case final measurements are claimed, they shall be taken only for those items for which either the contractor or the Executive Engineer claims final measurements and the quantities of the remaining items in Schedule–A shall be accepted as correct. The lump sum amount mentioned in the agreement will then be varied by adding thereto or deducting there from as the case may be, the difference (if any) between the amounts mentioned in Schedule–A for such items and the amounts arrived at by calculation at contract rates based on the revised quantities for the same, obtained by the final measurement aforesaid.

58.3 It shall be accepted as a condition of the contract that the payment of the final bill to the contractor less the withheld amounts and his acceptance thereof shall constitute a full and absolute release of Government from all further claims by the contractor under the contract.

## 59. Payment for additions and deductions for omissions

59.1 No authorized variation shall vitiate the contract, but additions and omissions shall be measured up and dealt with in accordance with clause 58.2'

592 If there is no rate in Schedule A for additional work ordered to be carried out by the Executive Engineer, then prior to execution of the additional work, a rate for the additional work, shall be worked out in accordance with the methods indicated in 59.3 and with the rate agreed upon a supplemental agreement shall be entered in the proper departmental form signed and dated by the contractor and the Executive Engineer and or any other officer for the time being authorized to accept such agreement and supplemental agreement shall on such acceptance form part of the original agreement. A copy of the supplemental slip shall be given to the contractor.

- 59.3.1 The rate for additional works shall be derived from the rate for similar items of work in the accepted agreement.
- 59.3.2 In the case of works for which supplemental agreement is to be entered into during the period

Contractor

when the schedule of rates has not changed from the date of execution of the original agreement then the rates for supplemental agreements may be the prevailing schedule or rates plus or minus tender premium in case the rates" cannot be derived from the items in the original agreement. In other case, where the schedule or rates

has changed in the intervening period, the rates prevailing as per the schedule of rates at the time of execution of supplemental items will be adopted with, no tender premium over this rate.

- 59.3.3 If the rate for a particular item of work is not in the schedule of rates, the prevailing market rate when the work has done shall be adopted.
- 59.3.4 If the rates cannot be determined as above, the rates shall be fixed on the cost of lab our and materials plus 10 percent thereon, provided the vouchers shall have been delivered to the Executive Engineer within 7 days after such work is completed. If the Executive Engineer considers that the vouchers are unduly high, the Executive Engineer can valuate the work as reasonable and fair and make payment if the value of payment is less than Rs. 1,000. If the value of additional payment exceeds Rs. I,000 the contractor shall have the right to submit matter to arbitration.

### 60. No payment for unsanctioned extras

60.1 It shall be distinctly understood that no payment whatever will be made to the contractor for variations by way of extras, in cases where such variations have been" made within the written sanction of Executive Engineer.

### 61. Accounts Receipts and Vouchers

The contractor shall at any time upon the request of the Executive Engineer furnish him with all invoices account, receipts and other vouchers that he may require in connection with the contract.

## 62. Fraud, willful neglect or default

62.1 No final or other certificate of payment or of completion, acceptance or settlement of account shall, in any circumstances, relieve the contractor from his liability for any fraud, or willful neglect or default in the execution of the contract or any willful or unauthorized deviations from drawings, specifications, instructions and directions for the time being binding upon him.

### 63. Unfixed materials

63.1 No payment or advance will be made for unfixed materials when the rates are finished work in situ.

#### 64. Payments and Certificate

64.1 Payments will be made to the contractor under the certificates to be issued at reasonably frequent intervals by the Executive Engineer or the Sub–Divisional Officer, within 14 days of the date of each certificate an intermediate payment will be made by the Executive Engineer or the Sub–Divisional officer of a sum equal to 95 percent of the value of work, as so certified and the balance of 5 percent will be withheld and retained as security for the due fulfillment of the contract.

Under the certificate to be issued by the Executive Engineer or Sub-Divisional Officer on the completion of the entire works. the contractor will receive the final payment of all the money due or payable to him under or by virtue of the contract except security deposit and the withheld amount equal to 2 1/2 percent of the total value of the work done provided there is no recovery from or forfeiture by the contractor to be made under clause 57. The amount with held from the final bill will be retained under. Deposits and paid to the contractor together with the Security Deposit after one year reckoned from the date of completion of work or as soon after the expiration of such period of one year as all defects shall have been made good according to the true-intent and meaning thereof whichever shall last happen. In the event the final bill remains unpaid even after the period of one year aforesaid, the Executive Engineer shall refund the security deposit which included the E.M.D. and also the withheld amount on a separate bill if requested for by the contractor in writing. No certificate of Executive Engineer or Sub-Divisional Officer shall be considered conclusive evidence as to the sufficiency

Contractor

of any work or materials or correctness of measurements to which it relates nor shall it relieve the contractor from his liability to make good defects and provided by the contract. The contractor when applying for a certificate, shall prepare a sufficiently detailed bill based on the original figures of quantities and rates in the contract Schedule–A to the satisfaction of the Executive Engineer, to enable the Executive Engineer or the Sub–Divisional Officer to check the claims and issue the certificate. The certificates as to such of the claims mentioned in the application as are allowed by the Executive Engineer or the Sub–Divisional Officer shall be issued within fourteen days of the application. No application for a certificate shall be made within fourteen days of a previous application.

64.1 (A) Notwithstanding the above clause, the withheld amount of 2 1/2% from the final bill in respect of contract for construction of original building, will be retained by the Govt. for a total period of one year in lieu of six months period referred to in clause 64.1 above and will be released after the expiry of one year period on execution of an indemnity bond by the contractor to the satisfaction of the Exe. Engr. for a further period of four years to ensure structural stability of the building under clause 26.1 A

64.2 When there are complaints from the labour Department about non-payment of wages to the labourers employed by the Contractor for the execution of works under agreement, the Executive Engineer, shall have full powers to withheld the bills claimed by the contractor pending clearance certificate from the Labour Department and to act as per the direction given

by the Labour Department.

### 65. Interest on money due to the contractor

65.1 No omission by the Executive Engineer or the Sub– Divisional Officer to pay the amount due upon certificates shall vitiate or make void the contract not shall the contractor be entitled to interest upon any guarantee fund or payments in arrear, nor upon any balance which may, on the final settlement of his accounts, be found to be due to him.

652 Whenever the withheld amount reaches Rs. 1,000 or a multiple thereof, the contractor may, at his option, deposit with the Executive Engineer an equal amount in sums of Rs. 1,000

or a multiple thereof, in any of the forms of interest bearing securities recognized for the purpose by the T.N. Public Works Account Code and subject to the provisions thereof contained in which case the equivalent withheld amount shall be paid to him forth with. The contractor will be permitted to exercise the option in this clause, subject only to the condition that the rates of progress contained in the Articles of Agreement is properly maintained.

### 66. Acceptance of final measurements

66.1 The contractor agrees that before payment of the final bill shall be made on the contract, he will sign and deliver to the Executive Engineer, either in the measurement book or otherwise as demanded a valid release and discharge from any and all claims and demands whatsoever for all matters arising out of or connected with the contract and also produce a certificate from the Income Tax Authorities that all income tax payable by him upto-date has been duly paid provided that nothing in this clause shall discharge or release the contractor from his liabilities under the contract. It is further expressly agree that Executive Engineer in supplying the final measurements and payments. The final measurements, if any of the Executive Engineer shall be final conclusive and binding on the contractor.

### 67. Recovery of money from contractor in certain cases

67.1 In every case in which provision is made for recovery of money from the contractor, Government shall be entitled to retain or deduct the amount thereof from any money, that may be due or may become due to the contractor under these presents and or under any other contract or contracts or any other account what so ever.

67.2 Recovery under Revenue Recovery Act

Whenever any amount has to be paid by the Contractor in view of the determination of the contract by virtue of clause 57 or any amount that may be due from the contractor is under these presents and the contractor is not responding to the demands for the payment of the said amount, then die Govt. shall be entitled to recover the said amount under the provisions of the Revenue Recovery Act.

### 68. Contractor dying becoming insolvent insane or imprisoned

Contractor

68.1 In the event of the death or insanity or insolvency or imprisonment of the contractor, or where the contractor being a partnership or firm becomes dissolved or being a corporation goes into liquidation voluntary' or otherwise, the contract may at the option of the Executive Engineer, be terminated by notice in writing posted at the site of the works and advertised in one issue of the local district Gazette and all accepted and acceptable works shall forthwith be measured up and paid for at the rates provided in the contract schedule where such apply, or otherwise, by the most recent schedule of rate of the division approved by competent authority to the person or persons entitled to receive and give a discharge for the

#### J. SETTLEMENT OF DISPUTES

payment.

## 69. Arbitrations

69.1 In case of any dispute or difference between the parties to the contract either during the progress or after - the completion of the works or after the determination. abandonment or breach of the contract, or as to any matter or thing arising there under except as to the matters left to the sole discretion of the Executive Engineer under clauses 18,20,25-3,27.1,34,35 and 37 of "General conditions of contract" or as to the with holding by the Executive Engineer of payment of any bill to which the contractor may claim to be entitled, then either party shall forthwith give to the other notice of such dispute or difference shall be and is hereby referred to the arbitration of the Superintending Engineer of the nominated circle mention in the "Articles of Agreement" (herein after called the 'Arbitrator') in cases where the value of claim is less than and upto Rs. 50,000/- in case where the value of claim is more than Rs. 50000/- the parties will seek remedy through the competent civil court. (G.O. Ms.No. 253 PW dt: 24.02.81)

The Arbitrator shall give detailed reasons in their awards for their findings and conclusion. (G.O.Ms.No. 1844 PW dt: 06.04.83)

Subject as aforesaid to the provisions of the arbitration Act, 1940 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the Arbitration proceeding under this clause.

Upon every and any such reference, the costs of and incidental to the reference and award respectively shall be discretion of the arbitrator, subject to the condition that the amount of such costs to be awarded to either party shall not, in respect of a monetary claim exceed the percentage set out below of any such award irrespective of the actual fees, cost and expense incurred by either party provided that where a monetary claim is disallowed in full the said percentage shall be calculated on the amount of the claim. The arbitrator may determine the amount of the costs to be awarded or director the same to be fixed as between solicitor and client or as party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

The percentage above referred to in this clause are 5% on any such monetary award which does not exceed Rs. 10,000 at 3% on the next Rs. 40,000 or any part thereof 2% on the next

Rs. 50,000 or any part thereof and 1% on any excess over Rs. 1,00,000/- provided that the government shall not be liable to any claim in respect of any such dispute or difference until the liability and the amount thereof shall have been referred to and decided by the Arbitrator.

69.2 The fees for Arbitrators shall be levied based on the value of claims referred to for arbitration. The fees shall be calculated at 5% of the fusty Rs. 10000/- at 3% of the next Rs. 40000/-

69.3 In cases where the value of claim is more than Rs. 50,000 the parties will seek remedy through the competent civil court.

APPENDIX No. I.

# PUBLIC WORKS DEPARTMENTS SAFETY CODE General Rules as to Scaffolds

 Suitable scaffolds shall be provided for workman for all works that cannot be safely done from a ladder or by other means. When a ladder is used an extra Mazdoor shall be engaged for holding the ladder and the ladder shall be given an inclination not setter the 0.25 to 1 (0.25 horizontal to 1 (vertical) When the ladder is used for carrying materials as well, suitable foot holds and hand holds shall be provided on the ladder.

- A scaffold shall not be constructed taken down or substantially altered, except (a) under the supervision of competent and responsible person; and (b) as for as possible by competent workers possessing adequate experience in such work.
- 3. All scaffolds and appliance connected therewith and all ladders shall
- a) be of sound material
- b) be of adequate strength having regard to the load strain to which they will be subjected and
- c) be maintained in proper condition

4. Scaffolding or staging more that 3.5 metres above the ground or floor shall have a guard rail properly attached, bo braced and otherwise secured at least 0 meter above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

- 5. Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- 6. Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.
- 7. Before installing lifting gear of scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- 8. Working platform, gangways and stairways should be so constructed that to part there can save unduly or unequally. If the height or the platform or the gangway or the stairways is more than 3.5 meters above ground level or floor level they should be closely boarded should have adequate width and should be suitably fenced as described in (4 above)
- 9. Every opening in the floor of a building or in a working platform shall be provided with suitable fencing or railing

(Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–O3.

for a minimum height of 0.9 meter to prevent the fall of persons or material.

10. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 metres in length while the width between side rails in rung ladder shall

in no case be less than 30cm for ladder upto and including 3 metres in length. For longer ladders this width should be increased at least 20 mm for each additional metre of length. Uniform step spacing should not exceed 30 cm. Adequate precautions should be taken to prevent danger from electrical

equipment. No materials on the site of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the Public from accidents and

shall be bound to bear the expenses of the defense of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing of the defense of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect

of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any which may be awarded in any such suit, action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise and claim by any such person.

## Excavation and trenching

11. Trenches -1.2 meters or more in depth, shall at all times be supplied with at lease one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 0.8 meter above the surface of the ground. The sides of trenches which are 1.5 meters or more in depth shall be stepped back to give suitable slope or hold securely by timber bracing, so as to avoid the danger of sides to collapse.

12. Demolition – Before any demolition is commenced and also during the process of the work –

 All roads and open areas adjacent to the work site shall either by closed or suitably protected.

Contractor

- b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
- c) All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

13. All necessary personal safety equipment as considered adequate by the Executive Engineer shall be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

- Workers employed on mixing asphaltic materials cement and lime mortars shall be provided with protective footwear and protective goggles.
- b) Those engaged in white-washing and mining or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.

c) Those engaged in welding works shall have protective goggles and protective clothing and seated at sufficiently safe intervals.

- Those engaged in welding works shall be provided with welder's protective sight lags.
- e) When workers are employed in sewers and man holes which are in use, the contractor shall ensure that the manholes covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.

f) The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Where ever men above the age of 18 are employed on the work of lead painting, the following precautions shall be taken.

- (i) No paint containing lead and lead products shall be used except in the form of paste of ready-made paint.
- (u) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
- (in) Overalls shall be supplied by the contractors to workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

- (iv) When workers are employed in dangerous occupations like work with hot bitumen, drilling operations etc., which are likely to prove dangerous resulting in physical damage and casualty, adequate protection of the workers should be provided.
  - 14. When the work is done near any place where there is risk of drowning all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatments of all injuries likely to be sustained during the course of the works.
  - 15. a) Hoisting machines and tackle including their attachments anchorages and supports shall be good mechanical construction sound materials and adequate strength and free from patent defect and shall be kept in good repair and in good working order. Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
  - Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in control of any hoisting machine, including

the scaffold winch or give signals to the operator.

c) In the case of every hoisting machine and of every chain ring hook shackle level and fully block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load, in the case of hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any hoisting machine or of any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

16. Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliance shall be provided with efficient safeguards, Hoisting appliance shall be provided with such means as will request to a minimum the risk of the accidental descent of the load. Adequate precautions shall be

Contractor

taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel such as gloves, sleeves and boots as may be necessary should be provided. The workers and carry keys or other materials which are good conductors or electricity.

- 17. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at workshop. The person responsible for the compliance of the safety code shall be named by the contractor.
- 18. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Executive Engineer of the Department or other representative.
- Notwithstanding the above clauses (1) to (18) there is nothing in these to exempt the contractor from the operations of any other Act of rules in force in the Republic of India.

Model Rules for provision of Health and Sanitary arrangements for workers employed by the P. W.D. and Highways and Rural works Department and their contractors

The contractor's special attention is invited to relevant clauses of the "General conditions of contract" in the Tamilnadu Building Practice and he is requested to provide at his own expense the following amenities' to the satisfaction of the Executive Engineer. Application : These rules shall apply to all building and construction works in charge of P.W.D.

2. Definition: (i) "Work place<sup>11</sup> means a place at which an average fifty or more workers are employed in connection with construction work.  $\cdot$ 

ii) "Large work place" means a place at which at an averaged 500 or more workers are employed in connection with construction work.

3. First Aid : (a) At the work site there shall be maintained in a readily accessible place, first aid appliance and medicines including an adequate supply of sterilized dressing. And sterilized cotton wool. The appliances shall be kept in good order. They shall be placed under the charge of a responsible person who shall be readily available during working hours.

(b) At large work places where hospital facilities are not available within easy distance of the works first-aid posts shall be established and be run by a trained compounder.

(c) Where large work places are remote from regular hospitals an in-door ward shall be provided with one bed for every 250 employees.

(d) Where large work places are situated in cities towns or in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to these hospitals. At other work places some conveyance facilities, such as a car shall be kept readily available to take injured persons or persons suddenly taken seriously ill to the nearest hospital.

- 4. Drinking Water :
  - a) Water of good quality fit for drinking purposes shall be provided for the work people on a scale of not less than 15 litres per head per day.
  - Where drinking water is obtained from an intermittent public water supply each work place shall be provided with storage tank where such drinking water shall be stored.
- c) Every water supply storage shall be at a distance of not less than 15 metres from any latrine, drain or other source of pollutions. Where water has to be drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.
- d) A reliable pump shall be fitted to each covered well the trap door shall be kept locked and opened only for cleaning or inspection which shall be done atleast once a month.

5. Washing and bathing places : Adequate washing and bathing places should be provided, separately for men and women such places shall be kept in clean and drained condition. Bathing or washing should not be allowed in or near any drinking water well.

6. Latrines and Urinals: There shall be provided within the precincts of every work place, latrines and urinals in an accessible place and the accommodation, separately for each of them, shall be on the following scale or on the scale so directed by the Executive Engineer in any particular cases.

(i) Where the number of persons employed does not exceed 50.....2 seats

(ii) Where the number of persons employed exceed 50 but does not exceed 100......3 seats

(iii) For every additional 100...... 3 seats

If women are employed separate latrines and urinals screened from those for men shall be provided on the same scale.

Except in work places provided with water flushed latrines connected with a water borne sewerage system, all latrines shall be provided with receptacle on a dry earth system which shall be cleaned at least four times daily and at least twice during the working hours and kept in strictly sanitary conditions. The receptacles shall be tarred inside and outside atleast once a year.

The excreta from the latrines shall be disposed off at the contractor's expense, in out way pits approved by the local Public Health Authority. The contractor shall also employ adequate number of scavengers and conservancy staff to keep the latrines and urinals in a clean condition.

7. Shelters during rest: At every work site there shall be provided free of cost, two suitable sheds one for meals and the other for rest separately for men and women for the use of labourers.

8. Creches: (a) At every workplace at which 50 or more women workers are ordinarily employed, there shall be provided two huts of suitable size for the use of children under age of 6 years belonging to such women, one hut shall be used for infants games and play and the other as a bed room. The huts shall not be constructed on a lower standard than the followingi) Thatched roofs

ii) Mud floors and walls.

iii) Planks spread over the mud floor and covered with matting. The huts shall be provided with suitable and sufficient opening for light and ventilation. There shall be adequate provision of sweepers to keep the places clean. There shall be two Dais in attendance. Sanitary utensils shall be provided to the satisfaction of the Health Officer of the area concerned The use of the huts shall be restricted to children, their attendants and mothers of the children.

- b) Where the number of Women workers is more than 25 hut less than 50, the contractor shall .provided atleast one hut and one Dai to look after the children of women workers.
- c) The size of creche or creches shall vary according to number of women workers.

The creche of creches shall be properly maintained and necessary equipment like toys, etc., shall be provided **Canteens:** A cooked food canteen on a moderate scale shall be provided for the benefits of workers if it is considered expedient

> (Sd) Executive Officer Chennai Arulmigu Ekambareswarar Temple, Chennai–03.

93

10. Sheds for workmen: The contractor should provide at his own expense shed? for housing his workmen. These sheds shall be on a standard not less than the cheap shelter type, to live in which the work people in the locality are accustomed to.

A floor area of about 1.8 metres x 1.5 metres for two persons shall be provided. The sheds to be in rows with 1.3 metres clear space between sheds and a 9 metres clear space between rows if conditions permit. The work people's camp shall be laid out in units of 400 persons, each, each unit to have a clear space of 12 metres alround.

Contractor

## AMENDMENT

(Issued in Govt. P.W.D., Letter No. 2163/Y2/95-I/dU9.9.96)

In the said preliminary specifications after clause 56.3 the following clauses shall be inserted, namely:

- 56.4 In cases where the Government under the terms of the contract with the contractor are liable to supply any materials, article or things to the contractor for the performance by him of his part of the contract, the executive Engineer, may at his absolute discretion extend the time with in which such materials, articles or thing maybe supplied by the Government, and the Government may supply to the contractor such materials, articles or things within the time so extended without any liability on their part to compensate the contractor by reason of the extension of time for the supply of the materials, articles or things.
- 56.5 In cases where the Government under the terms of the contract are liable to supply any materials, articles or things to the contractor for the performance by him of his part of the contract and the Government for any reason are unable to supply such materials, articles or thighs either within the time specified in the contract or within the time extended under clause 56.4 the Executive Engineer may at his discretion or at the request of the contractor determine the whole or any part of the contract which cannot be performed by reason of the failure to supply such materials, articles or things and the contractor shall not be entitled to claim any damages or compensation in respect of such determination. The contractor shall however, be paid the value of the work already done by him and the cost of the materials articles or things if any collected by him up to the date of such determined and left unused on the work-spot (Which shall be taken over by the Executive Engineer either at the contract rates or at values deducted form the through rates included in the contract) when the contract is determined at the discretion of the Executive Engineer to determine the contract and the decision of the Executive Engineer to determine the contract and the decision of the Executive Engineer to determine the contract or and the decision of the Executive Engineer to determine the contract shall be final and binding on the contractor

Explanation: The expression through rules means the rate for the finished items of work or the all in rates that is to say, the rates for finished items of work inclusive of the cost of materials and labour

56:6 If, at any time after the acceptance of tender the Government shall, for any reason what so ever not required the whole or any part of the works to be carried out, the Executive Engineer shall give notice in writing of the fact to the contractor who have no claim to any compensation or other payments what so ever, on account of any profit or advantage he might have derived from the Execution of the work in full but which he did not drive in consequence of the termination of the works, he shall be paid at contract rates, for the work executed by him including any additional works such as clearing of site etc. may be rendered necessary by such determination. He shall also be allowed a reasonable payment as decided by the authority which accepted the tender, for any expense incurred by him on account of labour and materials, articles or thing collected, but which could not be utilized on the works as verified by the Executive Engineer such decision shall be final and binding on both the parties and shall not be subject to arbitration under clause 69.

# DEPARTMENT PENALTY PER CLAUSE AS

## G.O.Ms.NO.2659, Public Works Department, DATED 23.12.1970 and

## Extract from the Tamil Nadu Buildings Practice Volume II

- 56. Delays in commencement or progress or neglect of work or suspension of work by the contractor and forfeiture of Earnest Money Security Deposit and withheld amounts.
- 57.1. Time shall be considered as the essence of the contract. If at any time, the Executive Engineer shall be of the opinion that the contractor is delaying commencement of the work, neglecting or delaying the progress of work as defined in the tabular statement "Rate of progress:" in the Article of Agreement or the contractor fails to maintain the rate of progress in the Article of Agreement plus any extension of time or the contractor shall suspend the works or sublet the work or a portion thereof without the sanction of the Executive Engineer or violates any of the provisions of the contract, the Executive Engineer shall so advise the contractor and at the same time demand compliance. If the contractor neglects to comply with such demand within seven days after receipt of such notice, it shall then or at any time thereafter be lawful for the Executive Engineer to impose a penalty or forfeiture on the contractor from the deposit or to determine the contract.
- 57.2. The Penalty or forfeiture referred to in Clause 57.1 shall not exceed 5% of the value of the work executed and is imposed in cases where the contractor is allowed to proceed with the whole or part and complete the whole or such part of works. The penalty or forfeiture imposed by the Executive Engineer under this Clause is however subject to modification or waiver at the absolute discretion of any authority higher in rank than the Executive Engineer.

- 57.3. It shall be a further right of the Executive Engineer to give any part of the work to any other contractor at his discretion or have it done departmentally in order to maintain the rate of progress and the contract shall then be determined for only that portion of the work given to other contractor or done departmentally. The forfeiture under Clause 57.2 will in these circumstances be applied and any expenditure incurred on this account shall be recovered from the original contractor.
- 57.4. Determination of the contractor referred to in Clause 57.1 shall carry with it the forfeiture of the Security Deposit. After determining the contract, the Executive Engineer shall have the right to give any part of work to any other contractor in the unexecuted portion of the contract in which case any expenses which may be incurred in excess of such amount which would have been paid to the original contractor if the whole work had been executed by him shall be borne and paid by the original contractor, and may be deducted from any money due to him by the Government under this contract or any other account whatsoever. Provided, also that if the expenses incurred by the Government are less than the amount payable to the contractor at his agreement rates, the difference will not be paid to the contractor.
- 57.5. In the event of any one of the above Clauses being adopted by the Executive Engineer, the contractor shall have no compensation for any loss sustained by him by reason of his having purchased or processed any materials or entered into any engagement or made any advance on account or with a view to the execution of the work or the performance of contract and in case action is taken under any of the provisions aforesaid the contractor shall not be entitled to be paid any sum for any work actually performed under the contract unless and until the Executive Engineer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.
- 57.6. In the event of the Executive Engineer putting in force all or any of the powers vested in him under the Clause 57.4, he may, if he so desires, after giving a notice in writing to the contractor, take possession of the works and site and all such plant and materials thereon (or any ground contiguous thereto) and all such plant and materials as above mentioned shall thereupon be at the disposal of Government absolutely for the purpose of completing the work After such notices shall have been given, the contractor shall not be at liberty to remove from the site of work or from the ground contiguous there to any plant or materials belonging to him which shall have been placed thereon for the purpose of the above work. Government shall not be liable to make any payment to the contractor or account of use of such plant for the completion of the works, under the provision herein before contained. On taking possession of the materials and stores belonging to the contractor or procured by the contractor and intended to be used for the execution of the

work or any part thereof, the contractor shall be paid for the same in account, at the contract rates to be certified thereof, shall be final. Otherwise the Government may give notice in writing to the contractor to remove any of his plant or materials from the site and not required for the completion of the works. If such plants or materials are not removed within 14 days after notice shall have been so given, the Government may remove and sell the same, holding the proceeds less the cost of removal and sale, to the credit of the contractor. The certificate of the Executive Engineer as to the expense of any such removal and sale shall be final and binding on the contractor.

# APPENDIX – IX – XXXVIII

# MONTHLY REPORT OF CONSTRUCTION EMPLOYEES UNDER CONTRACTORS

- 1. Name, location and type of work
- 2. Name of Contractor
- 3. Works engaged in
  - $(i)\ \mbox{P.W.D, Work}$
  - $(\ensuremath{\textsc{ii}})$  Government work other than PWD (iii) Other works
- 4. Name and address of Manager(s) of works
- 5. Value of contract
- 6. Employment earnings

Category	Men	Women	Employees boys	Girls
1	2	3	4	5

- I. Total number of employees during months:
- II. Number of employees in the works on the last working day of the month:

EL Total wages paid for

N. Total numbers of working days during the month

V. Length of normal wage period

Date :

Place :

To:

1.TheEmploymentOfficer, DistrictEmploymentOffice, 2.ExecutiveOfficer,"CHENNAIARULMIGUEKAMBARESWARARARTEMPLE, CHENNAI-03"...

Signature of the Contractor or Manager

## Instruction to complete the Performa

- 1. The Contractor means the person who has contracted to execute the works.
- 2. Manager means any person who manages, supervises the work(s) on behalf of the contractor.
- Item-6(i) The cumulative total of daily employment on all days in a Calendar month, if the last day of

the Calendar month is a holiday, the working day immediately previous to the holiday Item 6

(ii) Wages means basic wage, dearness allowance project allowances etc. including work

benefits paid in cash or kind.

Item 6 (iii) Columns 2 and 3 refer to adults who are 18 years of age or over. Item 6 -

Columns 4 and 5 refer to others not covered by columns 2 and 3.

4. Returns should cover a calendar month.

5. Completed returns to reach the employment exchanges concerned on or before 5th of the monthSucceeding the month to which the return relates.

\*\*\*\*\*\*\*

HIND	HINDU RELIGIOUS & CHARITABLE ENDOWMENT			JOINT COMMISINOR - 1				
			SCHEDULE	- A				
	NAN	IE OF WORK:	CONSTRUCTION OF COMMERCIAL BUILDING AT TEMPLE CHENNAI -03	LAND BEAR	ING DOOR NO	) 5, ekambares	WARAR AGRAH	ARAM STREET,
	Qu	antity		T.N.B.P		Rate		Amount in
S.No.	In Figures	In Words	Description of work	No. or NBC No	In Figures	In Words	Per	Figures Rs. P
1	2	3	4	5	6	7	8	9
1	100.00 m <sup>3</sup>	One Hundred cubic metres Only	Earth work excavation for foundation in all classes of soils such as hard stiff clay, stiff black cotton, hard red earth, shales, murram, ordinary earth, earth mix with 50% fair sized boulders etc., with initial lead and lifts including laying, spreading, levelling, sectioning breaking clods etc., including all incidental charges etc., complete as per standard specification and as directed by the departmental officers	23 & 24 V,VI S2			1 Cu.M (One Cubic metre)	
2	30.00 m <sup>3</sup>	Thirty cubic metres Only	<b>Supply and filling of Quarry dust (Stone dust) and</b> <b>Gravel Mix 1:3</b> in layers of not more than 15 cm thick or required depth including watering with all layers and consolidation complying with standard specification including cost and conveyance of sand to Site and all labour charges and all other incidential charges etc,. complete as per Standard Specificationand as directed by the departmental officers	24 & 25 V,VI S2			1 Cu.M (One Cubic metre)	
3	100.00 m <sup>3</sup>	One Hundred cubic metres Only	Supplying and filling in foundation basement with Gravel well watered, rammed and consolidated thoroughly compacted upto plinth level including watering etc.complete complying with standard specifications as directed by department officers.	24 & 25 V,VI S2			1 Cu.M (One Cubic metre)	

No. of <u>Corrections</u> : No. of Overwritings :

Chennai ArulmiguEkambareswarar Temple, Chennai-03.

(Sd)

Executive Officer

4	32.00 m <sup>3</sup>	Thirty Two cubic metres Only	<b>Plain Cement Concrete 1:4:8</b> (One Cement four sand and eight aggregate) using 40mm hard broken granite stone jelly for foundation including dewatering and wherever necessary laying in layers of 15cm thick and consolidated and curing complying with standard specification and as directed by the departmental officers.	28 V, VI S2 (SS.A)VII	1 Cu.M (One Cubic metre)	
5			<b>Supplying and laying M25 grade mix concrete</b> for the following grade of concrete having charaterstic strength not less than specified in the IS 456 - 2000 using Ordinary portland cement with minimum cement content of 366 Kg / cum confirming to IS 8112. Coarse aggregates having a specific gravity of 2.60 using 20 mm downgraded hard blue granite broken stone jelly and fine aggregate without fly ash as per IS 383 - 1970 ( 2007 ) with suitable water cement ratio not less than 0.45 of water quality confirming to IS 456 - 2000 including use of plasticizer of approved make & dosage of required grade at all locations and levels with specified high workability as per IS 1199 - 1959 (2004). The initial & final setting time confirming IS 12269 - 1987 ( 2004 ). The admixtures affecting the quality and strength of the concrete should not be used and should confirm IS 9103 - 1979 [ usual admixture - Air entraining & water reducing ] [ RMC M25 Grade ] etc., complete complying with standard specifications and as directed by the department Officers.	30(S) 86 86 A V, VI (S3) VII		
a)	42.00 m <sup>3</sup>	Forty Two cubic metres Only	Foundation and basement		1 Cu.M (One Cubic metre)	
b)	64.00 m <sup>3</sup>	Sixty Four cubic metres Only	Above Basement		1 Cu.M (One Cubic metre)	

No. of <u>Corrections</u> : No. of Overwritings :

6			Supplying & Erecting of steel centering for sides & soffits including necessary supports & strutting upto 3.29m height for plane surfaces in all floors with all cross bracings using mild steel sheets of size 90 x 60cm & 10 gauge stiffened, welded with steel angle of size 25 x 25 x 3mm for boarding laid over silver oak joists(Country wood) of size 10 x 6.5cm spaced @ about 90cm c/c and supported by casurina props of 10 - 13cm dia. spaced @ 75cm c/c etc., complete complying with standard specifications and as directed by the departmental officers.30(S) 86 86 A V, VI (S3)	
a)	125.00 m <sup>2</sup>	One Hundred and Twenty Five square metres Only	Column Footing,Plinth beam,etc.,	1 Sq.M (One Square Metre)
b)	460.00 m <sup>2</sup>	Four Hundred and Sixty square metres Only	Sunshade, roof slab, vertical slab, lintel etc,	1 Sq.M (One Square Metre)
c)	120.00 m <sup>2</sup>	OneHundred Twenty square metres Only	ColumnSqaure,Rectangular or round	1 Sq.M (One Square Metre)
7	160.00Qtl	One Hundred Sixty Quintol Only	SupplyingandFabrication ofSteelandplacinginposition MS / Ribbed tor steel Grills for RCC works as per design given including cost of steel and GI binding wire in Floors etc,. Complete complying with standard specification in force and as directed by department officials.SS 86 & 86 A V, VI (S3) (S6) VII	1 Qtl (One Quintol)
8			Brick work in In Cement Mortar 1:5 (one cement and five sand) using best country brick of size 8 3/4" x 4 1/4" x 2 1/4" for foundation and basement including curing, etc., complete complying with standard specification and as directed by the departmental Officers.31 similar to 31 C V, VI (S5) VII	
a)	14.00 m <sup>3</sup>	Fourteen Cubic metres Only	Foundation and Basement Level	1 Cu.M (One Cubic metre)

No. of <u>Corrections</u> : No. of Overwritings :

(Sd)

Executive Officer

Chennai ArulmiguEkambareswarar Temple,

Chennai-03.

b)	34.00 m <sup>3</sup>	Thirty Four Cubic metres Only	In Ground Floor (Upto 4.50m level)		1 Cu.M (One Cubic metre)	
c)	30.50 m <sup>3</sup>	Thirty Point Five Zero Cubic metres Only	In First Floor		1 Cu.M (One Cubic metre)	
d)	16.50 m <sup>3</sup>	Sixteen point Fifty Cubic metres Only	In Second Floor		1 Cu.M (One Cubic metre)	
9	850.00 m <sup>2</sup>	Eight Hundred and Fifty Square metres Only	<b>Plastering walls with cement mortar 1:5</b> (One cement fivesand) 12mm thick in all floors and all exposed surfaces including cost and conveyance of materials to site and all labour charges, Curing etc complete complete complying with standard specifications and as directed by the departmental Officers.	61 V & VI S4(3)	1 Sq.M (One Square Metre)	
10	600.00 m <sup>2</sup>	Six Hundred Square metres Only	<b>Special Plastering with cement mortar 1:3</b> (One cement three sand) 10mm thick including cost and conveyance of materials to site and including all labour charges etc complete complying with standard specifications and as directed by the departmental Officers.	56 & 57	1 Sq.M (One Square Metre)	
11	4.00 m <sup>2</sup>	Four Square metres Only	<b>Supplying and Fixing of Plain Pre laminated ABS door</b> of 35mm thick factory made pre-laminated ABS (Acrolynitrile Butadiene Styrene) door shutters moulded with different designs, consisting of alround frame made of water proof solid foam PVS bar of size 20 x 32 mm, reinforced by 32 x 32 mm 2 Nos, for verticals and made out of LVL (Laminated vaneer lumber), core material of 32mm thick high density craft paper honey comb board, sandwitched on both sides with pre laminated ABS sheet of thickness 1.5mm. PVC edge banding of size 0.45mm on vertical sides. hardwares made out of steel coated butterfly hinges - 3 Nos, for each shutter and ISI made SS round lock complete for finished item of work., complete complying with standard specification. The Door shutter and frame should got approved from the Engineer Incharge.	86 & 86A	l Sq.M (One Square Metre)	

No. of <u>Corrections :</u> No. of Overwritings :

12	10.00 m <sup>2</sup>	Ten Square metres Only	<b>Supplying and fixing cold rolled Rolling shutters of</b> <b>approved quality of 18 gauge</b> (Fixed under RCC Beam) 7.5 cm widecold rolled lath section in one piece inter locked together with specially a specially designed pipe shaft with adequate number og high tensile steels wire springs of approved quality complete with brackets,side guides and arrangements for inside and outside locking with push and pull operations and pulling back handle with all accessories with best work manship. The entire hutter painted with two coats of best quality anti- corrosive nut brown colour paint over one coat of red oxide primer and clear opening of 3.05m width and 3.05m height. The rolling shutter will be placed below the lintel and behind the RCC beam 60cm depth. Each rolling shutter shall be provided with one pair of approved quality of ball bearing etc., complete.Rolling shutter should be got approved by the Executive Engineer before fixing in position.		1 Sq.M (One Square Metre)	
13	140.00 kg	One Hundred and Forty Kilograms Only	<b>Supplying and fixing M.S Grill</b> to doors, special windows and ventilators etc using 20mmx6mm as directed by the departmental officers inclusive of cost of MS grill labour charges for fixing & including painting One coat of red oxide primer Two coats of synthetic Enamel Paint etc. completecomplying with standard specifications and as directed by the departmental Officers.	SPL	1 kg (One Kilogram)	
14	20.00Rm	Twenty Running metres Only	Manufacturing supplying and fixing Stainless steel Hand rails for staircase near wet riser using 50mm dia 340L garde stainless steel pipe of 1.6mm thick will be provided withTublar supports made of 340L grade stainless steel pipe of 25mm dia of 1.6mm thick welded to the railing. The supports will be grouted into wall/step thread and provided with 93mm thick stainless steel circular base plate of 304 grade. The rate shall be included for grouting into concrete with necessary supporting arrangements the hand rail in floor polishing buffing, bonding, cutting, grinding,	86 & 86A	1 RM (One Running Metre)	

No. of Corrections :

No. of Overwritings :

(Sd) Executive Officer

Chennai ArulmiguEkambareswarar Temple,

Chennai-03.

15	40.00Rm	Forty Running metres Only	conveyance, welding charges, electrical charges etc., completecomplying with standard specifications and as directed by the departmental Officers. <b>Supplying, fixing in position best approved BIS quality</b> <b>PVC Rainwater downfall pipe of 110mm</b> dia having 4 kg/ sq.cm. including cost of necessary PVC shoe, PVC Bend, Cast iron Gratings of required diameter and special clamps, brass screws nails etc., for fixing cast iron gratings at the junction of parapet and the RCC roof slab including finishing neatly etc., The rate shall be inclusive of cost of removable cast iron grating. The PVC pipe shall be fixed in wall with special type of 'U' clamp at the center of the pipe line in addition to those for more than 3.00m pipe length etc., complete complying with standard specifications as directed by departmental officers. (The PVC pipe should got	SPL	1 RM (One Running Metre)	
16	250.00 m <sup>2</sup>	Two Hundred and Fifty Square metres Only	approved by departmental officers before use on work) <b>Paving the flooring with Vertified tiles of size 600mm x</b> <b>600mm x 8mm</b> of approved colour and quality laid in cement mortar 1:3 (one cement and three sand ) 20mm thick over the existing bed of Cement Concrete 1:4:8 (One Cement, Four Sand and Eight aggregate) in Ground Floor and in slab for all other floors pointing the joints to full depth of slabs with same mortar mixed with black oxide and the top surface rendered smooth, curing, etc., The Vertified Tile and other materials to be used shall be got approved by the Executive Engineer concerned before use on work, etc., complete complying with standard specification. and the top pointed with the colour cement etc., complete complying with standard specifications and as directed by the departmental Officers.		1 Sq.M (One Square Metre)	

No. of <u>Corrections</u> : No. of Overwritings :

17			Weathering course in Brick jelly and lime concrete using broken brick jelly of size 20 mm uniform gauge in pure slacked lime ( no sand to be used ) the proportion of brick jelly to lime being 32:12.5 by volume laid over the RCC roof slab in a single layer of required design, slope and finished thickness by beating the concrete with wooden and beaters of approved pattern keeping the surface constantly wet by springing lime Jaggery water etc,. complete as per standard specification and as directed by the departmental Officers.	44 & 44F		
a)	4.50 m <sup>3</sup>	Four point Five Zero Cubic metres Only	In First Floor		1 Cu.M (One Cubic metre)	
b)	8.00 m <sup>3</sup>	Eight Cubic metres Only	In SecondFloor (Terrace Floor)		1 Cu.M (One Cubic metre)	
18	160.00 m <sup>2</sup>	One Hundred and Sixty Square metres Only	Finishing the top of Roof with one course of machine Pressed Tiles of size ( $23x23x2cm$ ) approved quality in CU.M. 1:3 - 12 mm thick mixed with water proofing compound confirming to IS ( <i>a</i> ) 2 % by weight of cement used and the joints pointed neatly to full depth of tiles with the same cement mortar mixed with red oxide and water proofing compound including curing etc,. complete complying with standard specifications and as directed by the departmental Officers.	44,44 H,V	1 Sq.M (One Square Metre)	
19	1450.00 m <sup>2</sup>	One Thousand Four Hundred and Fifty Square metres Only	Painting the new walls two coats over one coat of priming with best Plastic Emulsion paint of approved colour and quality including preparation of surface and finishing neatly etc., complete complying with standard specification and as directed by the department officers.	66 & 66A	1 Sq.M (One Square Metre)	
20	14.00 m <sup>2</sup>	Fourteen Square metres Only	<b>Painting new iron works with two coats of approved</b> <b>quality and colour of Synthetic Enamel paint</b> over the existing red oxide primer in all floor etc., complying with standard specifications and as directed by the departmental Officers.	66 & 66F	1 Sq.M (One Square Metre)	

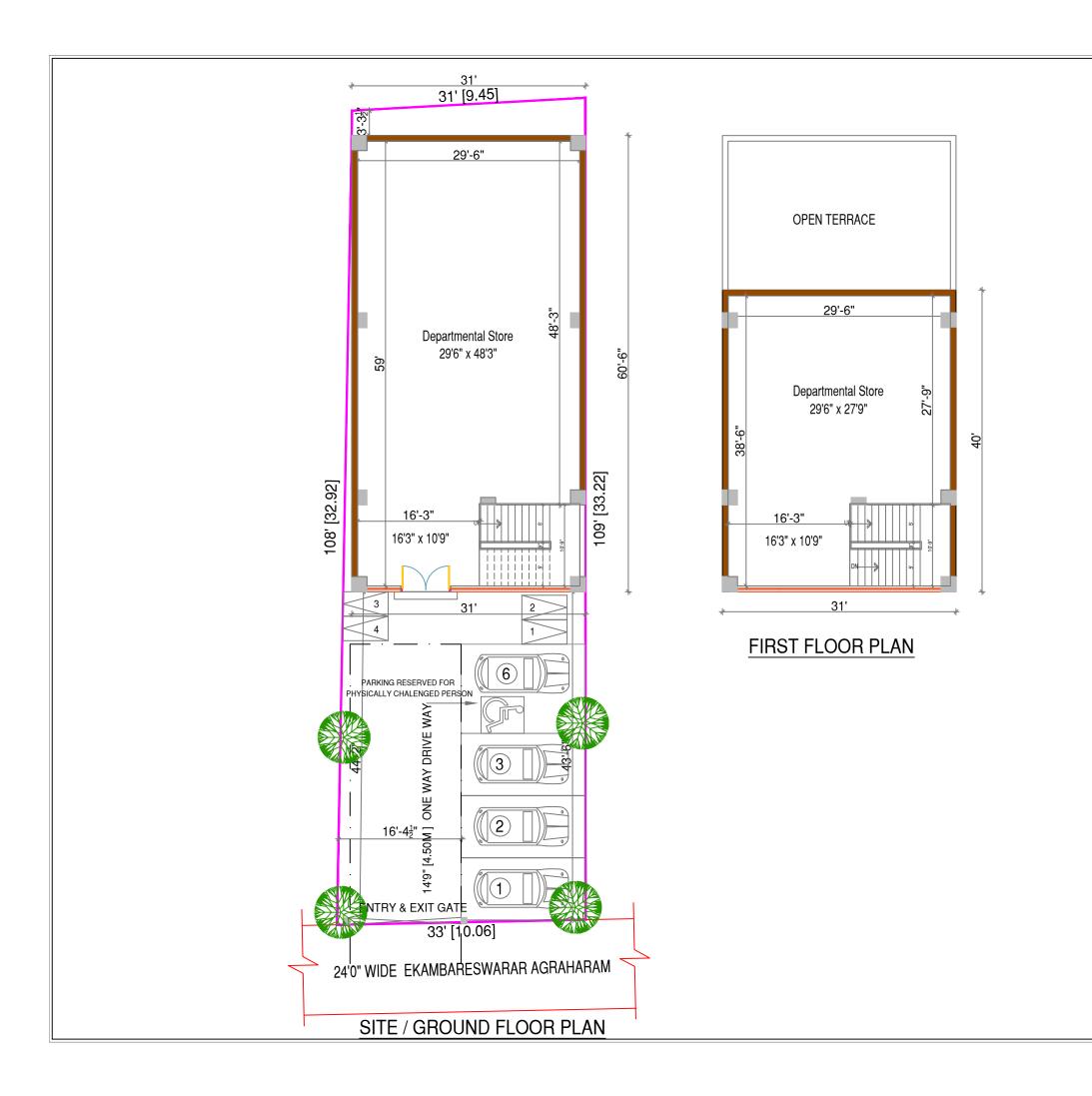
No. of <u>Corrections :</u> No. of Overwritings : (Sd) Executive Officer

Chennai ArulmiguEkambareswarar Temple,

Chennai-03.

21	35.00 m <sup>2</sup>	Thirty Five Square metres Only	<b>Paving the floor with pre-polished concrete Anti-skid</b> <b>Tiles</b> (Required shape and design) of 20mm thick of approved quality and colour laid in Cement Mortar 1:3 (One Cement and Three sand) 20mm thick and pointed with white cement mixed with colouring pigment at the rate of 0.40 Kg. / sq.m., curing, etc., complete complying with standard specification and as directed by the departmental officers. (The make and brand of the tiles should be got approved by Executive Engineer before use on works)		1 Sq.M (One Square Metre)	
	Total Numb	er of 21 Items (T	wenty One Only)			
			Total			
		GST 12%				
			Grand Total			

No. of <u>Corrections</u> : No. of Overwritings :



Project.								
Proposed Commercial Building								
For EKAMBARESWARAR TEMPLE								
At Plot- 9066 At Ekambareswarar								
Agraharam, Chennai.								
Agranaram, onorman								
PROPOSED COMMERCIAL BUILDING								
FSI Area S	tatement	<u> </u>						
Land use Mixed Residential - Alowed 300 Sq.m Commercial or 16 Dwelling Units								
	g.Ft. [ 3.645	Grou	inds 1					
Allowable F.S.I = 2.00 [			indo ]					
Achieved F.S.I = 0.94								
Departmental Store	FSI AREA	NON						
GROUND FLOOR	Sq.Ft. 1870.00	Sq	.Ft.					
FIRST FLOOR	1240.00							
TOTAL FLOOR	3210.00							
TERRACE FLOOR	5210.00							
CAR PARKING CALCULATION DETAIL	S	CARS	TWO					
SHOP (3210 / 10.764) = 298.21 X 75% = 223.6		4	4					
TOTAL ACHIEVED PARKINGS		4	4					
Plot- 9066 OPTION - 1		S						
<u>CONCEPT LAYOU</u> <u>GROUND + 1 FLOO</u>	DR							
CONCEPT LAYOU		NOR e -26.08						