



THANVI
ENGINEERING
CONSORTIUM

DATE: 10.05.2021

To

The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai – 622 303.

Dear Sir/Madam,

Subject: Enquiry Regarding Consultancy Work Brochure - Soil Testing

Thank you for sharing the Consultancy Work brochure of Sri Bharathi Engineering College for Women. We are particularly interested in your expertise in soil testing and would like to enquire further about this service. Kindly provide information on the cost structure for soil testing services and the expected turn around time for delivering test results.

Sincerely,


Thanvi Engineering Consortium

Thanjavur.



Forwarded to
HOD/cinl

10/05/21


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : 12.5.21

To

Thanvi Engineering Consortium
No. 39, Podhupanithurai nagar
Near Maharaja Mahal
Pudukkottai Road
Thanjavur – 613 005

Respected Sir,

Sub : Submission of consultancy work quotation – Reg.

Greetings from Sri Bharathi Engineering college for women !!!

With reference to your letter dated 10.05.2021, we would like to inform you that, the consultancy charges for the following test is furnished here

S.No	NAME OF THE TEST	COST PER TEST (IN Rs.)
1	Specific gravity test	300
2	Atterberg's limit's (LL & PL) & plasticity index	1500
3	Proctor compaction test	
	I. Dry density test	1500
	II. Optimum moisture content	
	TOTAL	3300

Thanking you

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

PRINCIPAL

PRINCIPAL

SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT



THANVI
ENGINEERING
CONSORTIUM

DATE: 17.05.2021

To

The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai - 622 303.

17/5/21
for necessary action
Please
17/5/21

Dear Sir/Madam,

Subject: Sanction Reply - Cost Estimation for Testing of Soil

I hope this letter finds you well. I am writing in response to the cost estimation provided for the testing of soil services, as per our previous enquiry.

After careful consideration of the cost estimation, I am informing that we have sanctioned the budget for the testing of soil as per the proposed amount (Rs.3300). We believe that the services offered by your college will meet our requirements and provide valuable insights for our upcoming project. We appreciate the transparency and detail provided in the cost estimation.

Please proceed with the necessary arrangements to initiate the soil testing process. We look forward to working with your college and receiving the test results within the specified timeframe. Feel free to contact us.

Sincerely,

Er. S. Mahendran, M.Tech.

Thanvi Engineering Consortium

Thanjavur




Dr. S. THILAGAVATHI, M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

Kaikkurichi, Pudukkottai - 622 303.

DEPARTMENT OF CIVIL ENGINEERING

CONSULTANCY TEST

REPORT

TESTING OF SOIL

SUBMITTED

TO

Thanvi Engineering Consortium

No. 39, Podhupanithurai nagar

Near Maharaja Mahal

Pudukkottai Road

Thanjavur – 613 005

REPORT DATE : 20.05.2021


DR. S. THILAGAVATHI M.E., Ph.D.
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

CONSULTANCY TEST REPORT

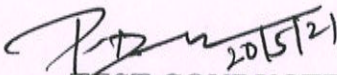
Date of sample given : 19.05.2021

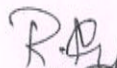
Date of testing: 20.05.2021


Total cost : Rs.3300/-

SOIL TEST REPORT

S.NO	TYPES OF TEST	VALUE	RANGE	REMARKS
1	Specific gravity test	2.38	2.4-2.6	Acceptable
2	Atterberg's limit (LL & PL) & plasticity index	61%	60-65%	Acceptable
3	Proctor compaction test	1.47 g/cm ³	1.93 – 1.58	Acceptable
	I. Maximum Dry density		g/cm ³	
	II. Optimum moisture content	19%	12 – 20%	Acceptable


TEST CONDUCTED


HoD/20/5/21


PRINCIPAL
20/5/21

HOD / CIVIL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT

Received
S. Srinivas
20/5/21


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



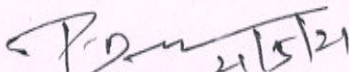
SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

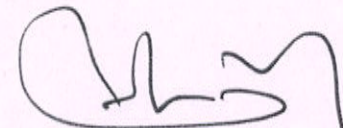
(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : 21/05/21...

UTILISATION CERTIFICATE

Certified that an amount of Rs. 3300/- (three thousand three hundred only) sanctioned during the year 2021 in favor of civil engineering received from **Thanvi Engineering Consortium** has been utilized for the project consultancy work titled "Testing of Soil". The purpose for which it was sanctioned has been duly fulfilled and delivered as per the conditions of the grant.


PROJECT INVESTIGATOR


PRINCIPAL
21/05/21

PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



THANVI
ENGINEERING
CONSORTIUM

DATE: 02.03.2021

To

The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai – 622 303.

Dear Sir/Madam,

Subject: Enquiry Regarding Consultancy Work Brochure – Compressive Strength test of Concrete Cubes (7 days).

Thank you for sharing the Consultancy Work Brochure of Sri Bharathi Engineering College for Women. We are particularly interested in your expertise in Compressive Strength test of Concrete Cubes (7 days) and would like to enquire further about this service. Kindly provide information on the cost structure for Compressive Strength test of Concrete Cubes (7 days).

Sincerely,

S. all
02/3/21
Thanvi Engineering Consortium

Thanjavur.



*Forwarded to
HOD / ai*

02/03/21

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : 03.03.2021.

To

Thanvi Engineering Consortium
No. 39, Podhupanithurai nagar
Near Maharaja Mahal
Pudukkottai Road
Thanjavur - 613 005

Respected Sir,

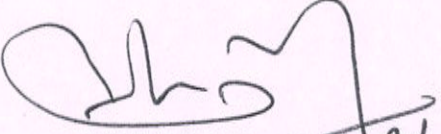
Sub : Submission of consultancy work quotation - Reg.


Greetings from Sri Bharathi Engineering college for women !!!

With reference to your letter dated 02.03.2021, we would like to inform you that, the consultancy charges for the following test is furnished here

S.NO	TYPES OF TEST	CHARGES (IN Rs.)	UNIT
1	Compressive strength	450	One set (3 cubes)
TOTAL		450	

Thanking you


PRINCIPAL
03/03/21


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT



THANVI
ENGINEERING
CONSORTIUM

DATE: 05.03.2021

To

The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai - 622 303.

14/03/21
for necessary action plan
05/03/21

Dear Sir/Madam,

Subject: Sanction Reply - Cost Estimation for Compressive Strength test of Concrete Cubes (7 days).

I hope this letter finds you well. I am writing in response to the cost estimation provided for the Compressive Strength test of Concrete Cubes (7 days), as per our previous enquiry.

After careful consideration of the cost estimation, I am informing that we have sanctioned the budget for the Compressive Strength test of Concrete Cubes (7 days) as per the proposed amount (Rs.450). We believe that the services offered by your college will meet our requirements and provide valuable insights for our upcoming project. We appreciate the transparency and detail provided in the cost estimation.

Please proceed with the necessary arrangements to initiate the Compressive Strength Testing process of Cement Concrete Cubes. Feel free to contact us.

Sincerely,

Er. S. Mahendran

Thanvi Engineering Consortium

Thanjavur

S. Mahendran
05/03/21



S. Thilagavathi
Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

Kaikkurichi, Pudukkottai - 622 303.

DEPARTMENT OF CIVIL ENGINEERING

CONSULTANCY TEST

REPORT

CEMENT CONCRETE CUBE TEST

SUBMITTED

TO

Thanvi Engineering Consortium

No. 39, Podhupanithurai nagar

Near Maharaja Mahal

Pudukkottai Road

Thanjavur – 613 005

REPORT DATE : 11.03.2021


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.

CONSULTANCY TEST REPORT

DATE OF CASTING: 04.03.2021

DATE OF TESTING: 11.03.2021

Samples supplied : Cement Concrete Cubes 150mm×150mm×150mm

Test conducted : Compressive strength – 07 days

Grade of mix : M25

S.no	Size of Cube in mm	Ultimate Compressive load in kN	Compressive Strength for 7 days in N/mm ²	Average Compressive Strength in N/mm ²
1	150mm×150mm×150mm	332	14.75	16.04
2	150mm×150mm×150mm	397	17.64	
3	150mm×150mm×150mm	354	15.73	

G. 11/03/21
TEST CONDUCTED

R.P.
HoD 11/3/21

HOD / CIVIL

SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

[Signature]
PRINCIPAL 11/03/21

PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT

Received
P. ae
11/03/21

[Signature]

Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

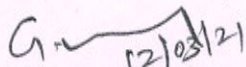
(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)


Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : 12/03/21.....

UTILISATION CERTIFICATE

Certified that an amount of **Rs. 450/- (four hundred and fifty only)** sanctioned during the year **2021** in favor of civil engineering received from **Thanvi Engineering Consortium** has been utilized for the project consultancy work titled "**Cement Concrete Cube Test**". The purpose for which it was sanctioned has been duly fulfilled and delivered as per the conditions of the grant.


PROJECT INVESTIGATOR


PRINCIPAL
12/03/21
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



THANVI
ENGINEERING
CONSORTIUM

DATE: 19.01.2021

To

The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai – 622 303.

Dear Sir/Madam,

Subject: Enquiry Regarding Consultancy Work Brochure – Concrete Mix Design M40.

Thank you for sharing the Consultancy Work Brochure of Sri Bharathi Engineering College for Women. We are particularly interested in your expertise in Concrete Mix Design and would like to enquire further about this service. Kindly provide information on the cost structure for Concrete Mix Design M40.

Sincerely,

Thanvi Engineering Consortium

Thanjavur.



Forwarded to

1400/wil

15/01/21


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : 20.1.21.....

To

Thanvi Engineering Consortium
No. 39, Podhupanithurai nagar
Near Maharaja Mahal
Pudukkottai Road
Thanjavur - 613 005

Respected Sir,


Sub : Submission of consultancy work quotation - Reg.

Greetings from Sri Bharathi Engineering college for women !!!

With reference to your letter dated 19.01.2021, we would like to inform that the estimated cost for the Concrete Mix Design M40 is approximately Rs.10,000/-. Please note that this estimation is subject to change depending on any further project refinements or unforeseen circumstances.

If you have any questions or require additional information regarding the cost estimation or any other aspect of the project, please do not hesitate to contact us.

Thanking you


PRINCIPAL
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.



THANVI
ENGINEERING
CONSORTIUM

DATE: 22.01.2021

To

The Principal,
Sri Bharathi Engineering College for Women,
Kaikkurichi,
Pudukkottai - 622 303.

11/01/21
for necessary action plan
22/01/21

Dear Sir/Madam,

Subject: Sanction Reply - Cost Estimation for Concrete Mix Design M40

I hope this letter finds you well. I am writing in response to the cost estimation provided for the Concrete Mix Design services, as per our previous enquiry.

After careful consideration of the cost estimation, I am informing that we have sanctioned the budget for the Concrete Mix Design M40 as per the proposed amount (Rs.10000). We believe that the services offered by your college will meet our requirements and provide valuable insights for our upcoming project. We appreciate the transparency and detail provided in the cost estimation.

Please proceed with the necessary arrangements to initiate the Concrete Mix Design M40 process. If you require any further information or clarification, feel free to contact us.

Sincerely,

Er. S. Mahendran, M.Tech.
22/01/21
Thanvi Engineering Consortium

Thanjavur




Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai

Kaikkurichi, Pudukkottai - 622 303.

DEPARTMENT OF CIVIL ENGINEERING

CONSULTANCY PROJECT WORK

REPORT

CONCRETE MIX DESIGN (M40)

SUBMITTED

TO

Thanvi Engineering Consortium

No. 39, Podhupanithurai nagar

Near Maharaja Mahal

Pudukkottai Road

Thanjavur – 613 005

REPORT DATE : 28.01.2021

Dr. S. THILAGAVATHI M.E., Ph.D.,

PRINCIPAL

**SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN**

Kaikkurchi - 622 303, Pudukkottai Dt.

CONSULTANCY PROJECT REPORT

Test Conducted for Cement:

S.No	Name of the Test	Test Result	Range
1.	Specific gravity of cement	3.14	3.10-3.15
2.	Fineness of cement	390 m ² / kg	300-400 m ² / kg
3.	Consistency test on cement	31%	25-30%
4.	Setting time of cement	30-60 min	30-60 min

Test Conducted for fine aggregate:


S.No	Name of the Test	Test Result	Range
1.	Specific gravity of fine aggregate	2.65	2.5-2.9
2.	Grading of fine aggregate	2.29	2.22-3.2
3.	Water absorption test on fine aggregate	1%	1-3%

Test Conducted for coarse aggregate:

S.No	Name of the Test	Test Result	Range
1.	Specific gravity of coarse aggregate	2.79	2.5 - 2.9
2.	Water absorption test on coarse aggregate	0.6%	0.5 - 2%
3.	Elongation index	9%	5 - 10 %
4.	Flakiness index	18%	15 - 20%

Admixture type:

Polypropylene (1.5%)


Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

STIPULATIONS FOR PROPORTIONING

- | | |
|--------------------------------------|-----------------------------|
| a) Grade designation | : M40 |
| b) Type of cement | : OPC 43 grade |
| c) Type of mineral admixture | : 1.5% of polypropylene |
| d) Maximum nominal size of aggregate | : 20 mm |
| e) Minimum cement content | : 320 kg/m ³ |
| f) Maximum water cement ratio | : 0.45 |
| g) Workability | : 100mm |
| h) Exposure condition | : severe |
| i) Method of concrete placing | : pumping |
| j) Degree of supervision | : good |
| k) Type of aggregate | : crushed angular aggregate |
| l) Maximum cement (OPC) content | : 450 kg/m ³ |

1. Target strength for mix proportioning (M40 grade)

$$f'_{ck} = f_{ck} + 1.65 s$$

$$\text{From IS 10262: 2009, } s = 5 \text{ N/mm}^2$$

$$\begin{aligned} \text{Target strength} &= 40 + 1.65 \times 5 \\ &= 48.25 \text{ N/mm}^2 \end{aligned}$$

2. Water cement ratio


From Table 5 of IS 456,

$$\text{Max. Water - cement ratio} = 0.45$$

$$\text{Adopt Water cement ratio} = 0.40$$

$$0.40 < 0.45$$

Hence O.K


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

3. Water content

$$\begin{aligned}\text{Max. Water content for} \\ 100 \text{ slump} &= 186 + 6/100 \times 186 \\ &= 197 \text{ liters} \\ \text{Water content} &= 197 \times 0.71 \\ &= 140 \text{ liters}\end{aligned}$$

4. Cement and Polypropylene content

$$\begin{aligned}\text{Water - cement ratio} &= 0.40 \\ \text{Cement content} &= 140 / 0.40 \\ &= 350 \text{ kg/m}^3 \\ \text{Min. cement content serve} &= 320 \text{ kg/m}^3 \\ 350 \text{ kg/m}^3 &> 320 \text{ kg/m}^3 \\ \text{Cementitious material content} &= 350 \times 1.10 \\ &= 385 \text{ kg/m}^3 \\ \text{Water content} &= 140 \text{ liters} \\ \text{Water cement ratio} &= 140 / 385 \\ &= 0.364 \\ \text{Polypropylene @ 1.5\% of} \\ \text{Total cementitious content} &= 385 \times 1.5 / 100 \\ &= 5.77 \text{ kg/m}^3 \\ \text{Cement (OPC)} &= 385 - 5.77 \\ &= 379.2 \text{ kg/m}^3 \\ \text{Saving of cement while using} \\ \text{polypropylene} &= 350 - 379.2 \\ &= -29.2 \text{ kg/m}^3\end{aligned}$$


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

5. Volume of coarse and fine aggregate content

$$\begin{aligned}\text{The volume of coarse aggregate} &= 0.62 \times 0.9 \\ &= 0.56\end{aligned}$$

$$\begin{aligned}\text{The volume of fine aggregate} &= 1 - 0.56 \\ &= 0.44\end{aligned}$$

6. Mix calculation

i. Volume of concrete = 1 m^3

ii. Volume of cement

$$= \frac{\text{mass of cement}}{\text{specific gravity of cement}} \times \frac{1}{1000}$$

$$= \frac{379.2}{-29.2} \times \frac{1}{1000}$$

$$= -0.12 \text{ m}^3$$

iii. Volume of water

$$= \frac{\text{mass of water}}{\text{specific gravity of water}} \times \frac{1}{1000}$$

$$= \frac{140}{1} \times \frac{1}{1000}$$

$$= 0.140 \text{ m}^3$$

iv. Volume of chemical admixture

$$= \frac{\text{mass of chemical ad.}}{\text{sp.gravity of chemical ad.}} \times \frac{1}{1000}$$

$$= \frac{7}{1.145} \times \frac{1}{1000}$$

$$= 0.007 \text{ m}^3$$



Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

v. Volume of all in aggregate

$$= [a - (b + c + a)]$$

$$= 1 - (-0.12 + 0.002 + 0.140 + 0.007)$$

$$= 0.971 \text{ m}^3$$

vi. Mass of coarse aggregate

$$= e \times \text{Volume of coarse aggregate} \times$$

$$\text{Specific gravity of coarse aggregate} \times$$

$$1000$$

$$= 0.971 \times 0.56 \times 2.74 \times 1000$$

$$= 1489.9 \text{ kg}$$

vii. Mass of fine aggregate

$$= e \times \text{volume of fine aggregate} \times \text{Specific}$$

$$\text{gravity of fine aggregate} \times 1000$$

$$= 0.971 \times 0.44 \times 2.74 \times 1000$$

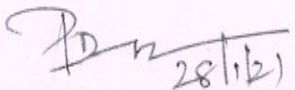
$$= 1170.63 \text{ kg}$$

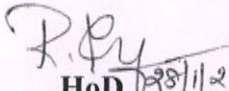


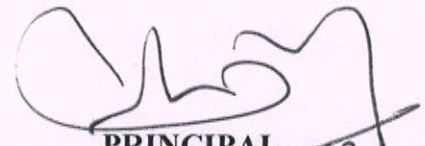
Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.


MIX PROPORTIONS

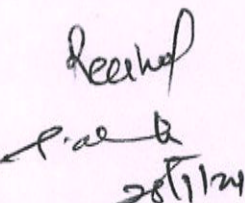
Cement	= 379 kg/m ³
Polypropylene	= 5.77 kg/m ³
Water	= 140 kg/m ³
Fine aggregate	= 1170 kg/m ³
Coarse aggregate	= 1489 kg/m ³
Water-cement ratio	= 0.364


28/1/21
TEST CONDUCTED


HoD 28/1/21
HOD / CIVIL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303


PRINCIPAL
PRINCIPAL 28/01/21
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.


28/1/21



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

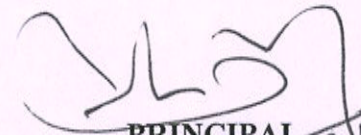
Pudukkottai - Aranthangi Road,
Kaikkurichi, Pudukkottai - 622 303.

Date : 29/01/21

UTILISATION CERTIFICATE

Certified that an amount of **Rs. 10,000/- (ten thousand only)** sanctioned during the year **2021** in favor of civil engineering received from **Thanvi Engineering Consortium** has been utilized for the project consultancy work titled "**Concrete Mix Design**". The purpose for which it was sanctioned has been duly fulfilled and delivered as per the conditions of the grant.


29/1/21
PROJECT INVESTIGATOR


PRINCIPAL
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai Dt.