

Southern Builder



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26.03.2021 அன்று நடைபெற்ற தென்னக மய்ய செயற்குழு கூட்டத்தில் அகில இந்தியத் தலைவர் திரு. Mu. மோகன் அவர்கள்

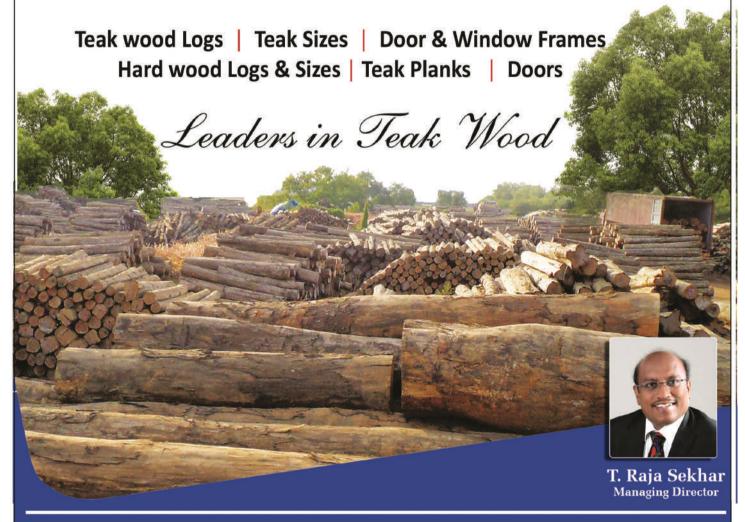
2021-22ம் ஆண்டின் தேசியத் துணைத்தலைவராக தேர்ந்தெடுக்கப்பட்ட திரு. S. அய்யநாதன் அவர்கள்

2021-22ம் ஆண்டின் தமிழ்நாடு மாநிலத்தலைவராக தேர்ந்தெடுக்கப்பட்ட திரு. R. சிவக்குமார் அவர்கள் சபையில் கவுரவிக்கப்பட்டனர்



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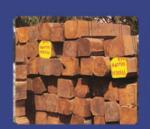






















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Builders' Association of India Southern Centre

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🛕 ஆசிரியர் மடல்

அன்புடையீர் வணக்கம்,

ஓராண்டு காலம் உலகத்தையே புரட்டி போட்டு மக்களின் இயல்பு வாழ்க்கை பாதிக்கப்பட்டு, பொருளாதாரம் பின்னடைவை சந்திக்க நேர்ந்தது. இது கோவிட்19 என்னும் கொடூர வைரஸ் ஏற்படுத்திய தாக்கத்தால்தான். அதனை மருத்துவர்களின் மகத்தான சேவை மற்றும் மக்களின் ஒத்துழைப்பினால் கட்டுப்படுத்தப்பட்டு மக்கள் இயல்பு வாழ்க்கைக்கு திரும்புகின்றார்கள்



என்னும் நல்ல செய்தி வந்து கொண்டிருந்த நேரத்தில் மீண்டும் கோவிட் 19 வைரஸ் மக்களை தாக்க தடம் பதிக்கிறது என்னும் அதிர்ச்சி செய்தி வருகிறது. மீண்டும் ஒரு பொது முடக்கம் என்னும் துன்பத்தை மக்களால் ஏற்க இயலாது. ஆதலால் மக்கள் விழிப்புணர்வு மற்றும் மிகுந்த பொறுப்புணடர்வுடன் செயல்பட்டு முகக்கவசம் அணிந்து சமுக இடைவெளியை கடைபிடித்து நல்வாழ்வு பெற்று நலமுடன் வாழ வேண்டும். இது காலத்தின் கட்டாயம். கடவுளின் தீர்ப்பு.

நமது பாரம்பரியமிக்க அகில இந்திய கட்டுநர் வல்லுநர் சங்கத்தின் தேர்தல் நடைமுறைகள் நடைபெற்று புதிய நிர்வாகிகள் பொறுப்பேற்க உள்ளனர். இத்தருணத்தில் மாநில சட்ட பேரவைக்கான தேர்தல் அறிவிக்கப்பட்டுள்ளது. மக்கள் தேர்ந்தெடுக்கப்போகும் புதிய அரசு மக்களின் வாழ்க்கைத்தரம் மேம்படவும், கட்டுநர் சமுதாயம் களிப்புடன் வாழ்ந்திடவும் திட்டங்களை வகுத்திடும் நல்லரசாக அமைந்திட விழைகின்றோம்.

2020-21ம் ஆண்டின் சதர்ன் பில்டர் இதழின் ஆசிரியராக வாய்ப்பினை நல்கி, பணியாற்றிட எனக்கு வாய்ப்பளித்து ஒத்துழைப்பு நல்கிய மய்யத்தலைவர் மற்றும் நிர்வாகிகள், ஆலோசகர்கள் மற்றும் இதழாசிரியர் குழும உறுப்பினர்கள் அனைவருக்கும் ஆண்டின் நிறைவு இதழான இந்த இதழில் எனது இதயம் கனிந்த நன்றியையும், வணக்கத்தையும் தெரிவித்துக் கொள்கின்றேன்.

எதிர் வரும் ஆண்டில் சதர்ன் பில்டர் இதழானது மேலும் சிறப்பாக அமைந்திட எனது வாழ்த்துக்களைத் தெரிவித்துக் கொள்கிறேன்.

அகில இந்திய கட்டுநர் வல்லுநர் சங்கத்தின் தேசியத் துணைத்தலைவர், தென் மண்டலம் II ஏகமனதாக என்னை தேர்வு செய்தமைக்கு அனைவருக்கும் எனது இருகரம் கூப்பி நன்றியையும், வணக்கத்தையும் தெரிவித்துக் கொள்கிறேன். நன்றி, வணக்கம்

> துன்பம் உறவரினும் செய்க துணிவுஆற்றி இன்பம் பயக்கும் வினை

> > - திருக்குறள்

என்றும் அன்புடன் S. **அய்யநாதன்**

மய்யத்தலைவர் மடல் 🌢

அன்பார்ந்த நண்பர்களே வணக்கம்,

16.03.2021 அன்று RERA குறித்த விழிப்புணர்வு கலந்தாய்வுக் கூட்டம் நடைபெற்றது. RERA கூடுதல் இயக்குநர் திரு. S. செல்வகுமார் அவர்கள் சிறப்பு விருந்தினராக கலந்து கொண்டு உரையாற்றி உறுப்பினர்களின் சந்தேகங்களுக்கு விளக்கமளித்தார்.

26.03.2021 அன்று ஓட்டல் Crown Plaza ல் நடைபெற்ற செயற்குழு மற்றும் பொதுக்குழு கூட்டத்தில் நம<u>த</u>ு மய்யத்திலிரு<u>ந்து</u> போட்டியின்றி ஒருமனதாக அகில 11 திரு. S. இந்தியத் துணைத்தலைவர் தென் மண்டலம் அய்யநாதன் அவர்களும், தமிழ்நாடு மற்றும் புதுச்சேரி மாநிலத்தலைவராக திரு. R. சிவக்குமார் அவர்களும் தேர்ந்தெடுக்கப்பட்டதற்கு வாழ்த்துக்கள் தெரிவிக்கப்பட்டு கவுரவிக்கப்பட்டனர்.

2021-22ம் ஆண்டிற்கு தென்னக மய்யத்திற்கு போட்டியின்றி ஒருமனதாக மீண்டும் தேர்வு செய்யப்பட்ட தலைவர் மற்றும் நிர்வாகிகளின் பதவி ஏற்பு விழாவினையும், இவ்வாண்டிற்கான முதலாவது மாநில அளவிலான பொதுக்குழு மற்றும் மேலாண்மைக்குழு உறுப்பினர்கள் கூட்டத்தினையும் இணைத்து வரும் மே மாதம் 7 மற்றும் 8 ஆகிய தேதிகளில் சென்னை Hotel Feathers ல் நடத்த முடிவு செய்யப்பட்டுள்ளது.

நடைபெற இருக்கும் 2021-22ம் ஆண்டில் நமது பெருமை மிகு அகில இந்திய கட்டுநர் சங்கம் தனது 80வது ஆண்டு விழாவினையும், நமது தென்னக மய்யம் தனது 70வது ஆண்டு விழாவினையும் கொண்டாடி மகிழவிருக்கும் நிலையில் வரும் ஜனவரி 2022ல் முப்பதாவது அகில இந்திய மாநாட்டினை நமது மய்யத்தின் சார்பாக நடத்துவதற்னாக ஏற்பாடுகள் தொடங்கப்பட்டுள்ளன. கடந்த 2011ம் ஆண்டு நமது மய்யத்தின் சார்பாக 24வது அகில இந்திய மாநாடு வெகு சிறப்பாக சென்னை வணிக வளாகத்தில் நடத்தப்பட்டது. இதுவே அகில இந்திய அளவில் இதுவரையில் நடைபெற்ற மாநாடுகளில் சிறப்பானதாக கருதப்படுகிறது. நடைபெறவுள்ள 30வது அகில இந்திய மாநாட்டினை அதையும் விட மிகவும் சிறப்பாக நடத்தி பெருமை கொள்வோம்.

தென்னக மய்யத்திற்கு மட்டுமின்றி அகில இந்திய அளவில் வழிகாட்டியாக விளங்கும் நமது மரியாதைக்குரிய பீஷ்மா திரு. R. இராதாகிருட்டிணன் அவர்கள் தனது 80வது பிறந்தநாளை கொண்டாடும் இம்மகிழ்ச்சியான நேரத்தில் பத்தாவது முறையாக இந்த அகில இந்திய மாநாட்டினை தலைமைப் பொறுப்பேற்று நடத்தவுள்ளார் என்பதனை பெருமையுடன் தெரிவித்துக் கொள்கிறேன். ஒருங்கிணைப்புத் தலைவராக நமது அகில இந்தியத் தலைவர் திரு. Mu.மோகன் அவர்கள் பொறுப்பேற்று நடத்தவுள்ளார் என்பதனையும் மகிழ்வோடு தெரிவித்துக் கொள்கிறேன்.

கடந்த ஆண்டு கொரோனா ஊரடங்கின் காரணமாக முழுவீச்சில் செயல்பட முடியாத நிலை இருந்தது. இவ்வாண்டு அதற்கும் சேர்த்து அகில இந்தியாவே வியக்கும் அளவில் நமது மய்யத்தின் செயல்பாடுகள் இருக்க வேண்டும் என்ற முனைப்போடு திட்டங்கள் வகுக்கப்பட்டு வருகின்றன. நாம் அனைவரும் முழு மனதுடன் ஈடுபட்டு மய்ய நடவடிக்கைகளுக்கு ஒத்துழைப்பு வழங்குவதோடு தேவைப்படும் நேரங்களில் தங்களாலான அனைத்து உதலிகளையும் வழங்க வேண்டும் என அன்புடன் வேண்டுகிறேன்.

என்றும் அன்புடன் L. சாந்தகுமார்

STAGES OF MANUFACTURE OF CONCRETE

A.R.Santhakumar Former Emeritus Professor, Department of Civil Engineering IIT Madras



The materials that go to make good concrete as well as poor concrete are the same. If poor control over the process of making concrete is exercised, then we get only bad quality concrete. However with the same ingredients, if intense care is taken to effect good control over the process of concreting, then and only then, we get good quality concrete. The various stages of manufacture of concrete are:

- (1) Batching
- (2) Mixing
- (3) Transporting
- (4) Placing
- (5) Compacting
- (6) Curing and
- (7)Finishing

This is schematically shown in Fig 5.1. it should be borne in mind that quality control is most important during all stages of manufacture of concrete

5.1 Batching

Batching is the process of measuring specified quantities of cement, aggregate, water and admixtures as per the mix proportions for a specified grade of concrete. There are two methods of batching. They are:

- 1. Volume batching
- 2. Weigh batching

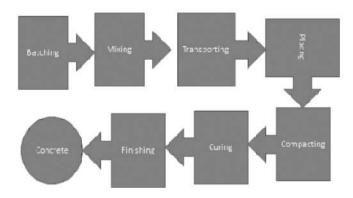


Fig.5.1Stages of manufacture of concrete

1. Volume batching: Volume batching is not a good method because of the inaccuracies it introduces in the measurement of granular materials. Volume of loose sand in a moist condition weighs less than the same volume of dry compacted sand due to the phenomenon of "bulking". Hence the effect of bulking must be considered while measuring sand. For less important non-engineered small works, in spite of the draw backs, this method is adopted because of its ease in application. However it is unscientific and hence not recommended for important works.

The quantity of the two variables that should be reckoned in the volume batching are:

- Relative proportion of the ingredients of concrete in terms of volume
- 2. The water- cement ratio

Table 5.1 shows the recommended values of relative proportion of ingredients by volume for different grades of concrete.

Table 5.1 Relative proportion of ingredients generally used in Volume batching

Grade of Concrete		Relative proportion of ingredients by volume		
	Cement Sand Coarse aggregate		x	
M10	1	3	6	1:3:6
M15	1	2	4	1:2:4
M20	1	1.5	3	1:1.5:3
M25	1	1	2	1:1:2

Water cement ratio used must be specified as per IS 456:2000

The typical gauge box used to measure the volume of ingredients is shown in Fig.5.2

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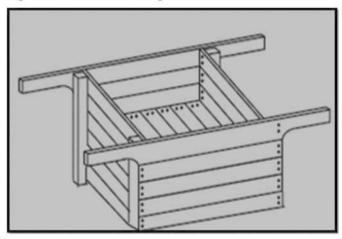


Fig. 5.2 A Typical Gauge box

The steps involved in the volume batching process are given below:

Step 1: Cement is first measured by weight. One bag of cement weighs 50 kg. This has a volume of 35 liters or .035 m.³ Cement should not be measured by volume because its unit weight will vary depending on the type of

compaction during filling of the cement bags. he gauge box shown in Fig.5.2 is used for measuring the required volume of coarse aggregate and sand. Generally the volume of the box is 35 liters that is the volume of one bag of cement.

Step 3: The moisture present in the sand must be accounted for during batching. The quantity of water is found by multiplying the water- cement ratio by weight of cement. From this quantity the water present in the aggregate is deducted to arrive at the water to be added to the mix. Water is measured in liters. However it can also be measured by weight in kg as its unit weight is 1.

2. Weigh batching

Weigh batching is the correct method of measuring the materials that go to form concrete. Use of weigh batching system facilitates accuracy, flexibility and simplicity. For large works, a weigh batching plant is used. A typical batching plant consists of the following.

- 1. Aggregate bins for storage of aggregates
- Feeding Mechanism such as scrapers, conveyors or hoist
- 3. Mixers for mixing the materials
- 4. Measuring system such as balances scales or electronic weigh system
- 5. Storage tank for water and water measuring system
- Dispenser for chemical admixtures
- 7. Control room

Fig.5.3 shows a typical modern batching plant. Aggregates are stored in silos and in bins protecting them from rain and dust from wind. Scrapers and conveyors are used to feed the mixers. Two types of plants are used. It may be either cyclic or continuous. In continuous feeding is done continuously automatically whereas is cyclic type loading and discharge are done cycle after cycle generally manually.

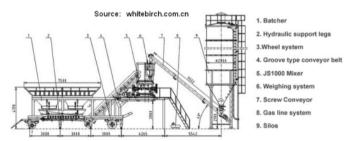


Fig. 5.3 A typical concrete batching plant

The code IS 456:200 stipulates the measuring accuracy. Cement is measured for \pm 2% accuracy and other materials such as aggregates, water and admixtures are measured for \pm 3% accuracy. The ingredients enter from one side of the mixture machine and it gets discharged from the other side.

Measurements of weight are made accurately by a system of mechanical levers and load cells. The discharge is done in modern machines automatically by weigh hopper gates operated by compressed air cylinders.

Presetting desired batch weight is feasible by using punched cards or digit switches and microprocessor computers.

Microwave moisture gauges are employed to determine the moisture in aggregates and in most plants flow meter is used to measure and regulate water quantity. In some plants water is also weighed.

IS 4925:2004 Concrete batching and mixing plant specification permits the tolerances given in Table 5.2 in batching depending on type of material.

Table 5.2 Tolerances in weight during batching materials for concrete

SI. No	Type of material	Tolerances permitted
1	Cement and other cementitious material	± 1%
2	Sand, aggregates	± 2%
3	Water	± 1%
4	Admixture	± 3%

The minimum weight of any material for which the above tolerance apply is given by

 $W = (0.3 \times R)/T$ where

W= Minimum weight in kg.

R= scale capacity in kg. and

T= weight tolerance in percent.

Proper batching ensures better quality. Variations in strength and other properties result from variations in proportions. If the properties of concrete like strength, density, slump exhibit less variation then we say the concrete is of uniform quality. On the other hand, if the variation of property, for example, strength variation is large, then it is not a uniform concrete. If the slump variation is large, it is not a uniform concrete. Every property that we are looking at, such as air content, aggregate content etc. should be less variable and be as uniform as possible.

5.2 Mixing

Through mixing is essential for the production of uniform quality of concrete. The method chosen for mixing should be in such a manner that it is capable of effectively mixing concrete material containing largest specified aggregate to produce uniform mixture for practically required slump.

5.2.1 Methods of mixing

Concrete is mixed either by hand mixing or machine mixing, based on requirement as per quality and quantity of concrete required. Normally for mass concrete, where good quality of concrete is required, mechanical mixer is used.

1. Hand mixing

Mixing by hand is employed only to specific cases where quality control is not of much importance because of the unimportant nature of work and quantity of concrete required is less. Hand mixing will not produce uniform concrete and hence should not be normally used except for very small domestic works. The steps involved in hand mixing are given below:

Step 1: Before mixing aggregates are washed with

water to remove impurities such as dirt, dust or any other unwanted materials.

Step 2: Measure the quantity of sand and spread it eve3nly on a platform.

Step 3: The required quantity of cement is spread evenly on the previously spread sand

Step 4: The sand and cement is mixed intimately using shovel turning it over and over again till uniform coloured mix is obtained.

Step 5: This sand cement mix is uniformly spread and on top measured amount of coarse aggregate is spread to have an uniform thickness.

Step 6: The whole mass should be mixed a number of times but at least three times by shovelling and turning over by twisting from centre to side, then back to the centre and again to the sides.

Step 7: A pit is made in the middle of the mixed heap.

Step 8: Three guarters of the total quantity of water required is added while the materials are turned in towards the centre with spades. The remaining water is added by a water-can fitted with rose head, slowly turning the whole mixture over and over again. This operation is continued until a uniform colour and consistency is obtained throughout the heap.

Step 9: 5 percent extra cement is added than that specified for machine mixing, when hand mix cement concrete is produced.

2. Mechanical mixing

Mechanical mixers can be divided into two main types. They are batch mixers and continuous mixers.

Batch mixtures produce concrete batch by batch, one batch at a time. The operation is intermittent. The raw material is loaded at one end and concrete is discharged at the other end. This constitutes a cycle of operation which is repeated till enough quantity of concrete is produced.

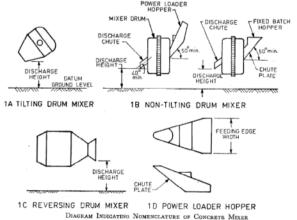
Continuous mixers produce concrete at specified rate. The raw materials are continuously entered at one end and mixed concrete exits at the delivery end.

Types of batch mixers

The following two types are commonly employed

- Horizontal or inclined axis (Drum mixers) (See 1. Fig.5.4)
 - Vertical axis (Pan mixers)(See Fig.5.5) 2.

The drum mixers have a drum, with fixed blades,



Source: IS 1791:1985 Indian standard General requirement for concrete mixed

rotating around its axis. The components of the drum mixer are shown in Fig.5.4.

Atypical Pan Type mixer is shown in Fig.5.5 mixers, on the other hand, may have either the blades or the pan rotating around the vertical axis.

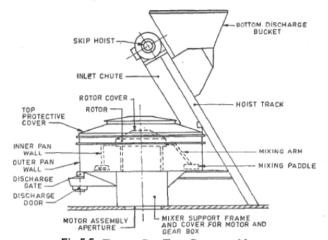


Fig.5.5 Typical Pan Type Concrete Mixer

Source: IS 12119:1987 general Requirements for Pan Mixers for Concrete

1. Working of the drum mixer

The blades of the drum mixer are attached to the movable drum. The material is input into the opening at the left side. When the blades rotate they drag and lift the material and make it fall. This operation ensures through mixing. For good mixing the rotation speed is controlled. The following are the types of drum mixers

- i. Non-tilting drum;
- ii. Reversing drum;
- iii. Tilting drum.

The tilting type shown in Fig.5.6 is commonly used because of its convenience.

In the non-tilting type (Fig.5.7) material is input at the left opening and after mixing discharged from right opening. In the reversing type the same opening is used to input and also discharge the material. The drum rotates clockwise for mixing and anticlockwise for discharging.

Three operations, namely, filling the mixer, mixing and discharging the mixed concrete is performed to get thoroughly mixed good fresh concrete. These are shown schematically in Fig.5.8.

Mostly tilting drum mixers are used in trucks employed in ready mixed concrete production. The speed of mixing if the ingredients are pre mixed is about 2rpm and if no pre mixing is done then the rate of mixing is 15 rpm.

2. Working of Pan Mixers

In Pan mixers either the pan or the blade or both rotate. Different configuration of blades is adopted. Fig 5.9 shows typical layouts of Pan and blades adopted.

In the configuration of Fig 5.9 a and b, the axis of rotation of the pan and blade coincide. However, Fig.4.9 c and d there are two rotations- one having dual shaft and the other having counter current motion. Fig. 4.9 shows a pan mixer in which both pan and scraper are rotating. To discharge the mixer the trap door at the bottom is utilized.

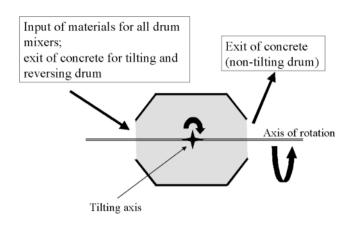


Fig 5.6 Typical cross section of the drum

Continuous mixers

They are usually of non-tilting type. They have screw type blades ratating at the middle of the drum. The drum is tilted 15 degrees downward towards discharge end. A major use is for low slump concrete employed in road works.

5.2.2 Mixing Time:

The mixing method includes loading of material, mixing time which imparts a particular energy to the ingredients and the discharge method. The efficiency of mixing depends on the duration of loading mixing and discharge. A typical schedule of loading, mixing and discharge is shown in Fig.5.10

Perfomance attribute of the mixed concrete:

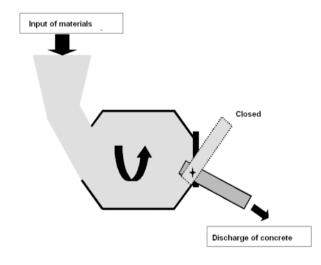


Fig.5.7 Cross section of non-tilting mixer

The concrete produced should have uniform properties of all significan variables. The properties that are considered for uniformity are the following:

- i. Workability in terms of Slump
- ii. Density of concrete
- iii. Air content
- iv. Compressive strength

The efficiency of mixing is determined by the uniformity of concrete produced. Thus what is required is

homogenious concrete. A direc measure of homogeneity depends on concrete composition, such as distribution of various constituents, including air content present in various samples taken during the concrete discharge.

5.2.3 Retempering

Re-tempering is remixing of wet concrete which has stiffened due to loss of workability caused primarily due to delay in placing after mixing concrete. The delay occurs for the delivery of concrete from the mixing plant due to time consuming transportation, long distance and sometimes traffic hold up. Generally, the concrete which has stiffened is rejected by the engineer at site. However from economic and from environmental consideration such rejection should be justified if not that stiffened concrete should be reused. To reuse the stiffened concrete usually specific quantity of cement and water are added.

I.S. Code does not allow remixing of partially hardened mortar/concrete. Therefore if such concrete is to be reused a detailed quality study must be undertaken to know the pros and cons of the problem. If the codes are not followed, additional water must be added to the concrete to restore the slump and provide sufficient workability for proper placing and compaction. The objection is then, that the additional water means a higher water/cement ratio and lower strength and durability.

A retempered concrete shows that a very wet mix having delay of one hour gains a strength increment of 2-15% when proper retempering is applied with additional cement and water or suitable admixtures. But further delay renders a decrease in strength

It is well known that retarding admixtures are capable of delaying the hardening of concrete to the extent that it can be vibrated or finished much later than normal without detriment to strength or durability.

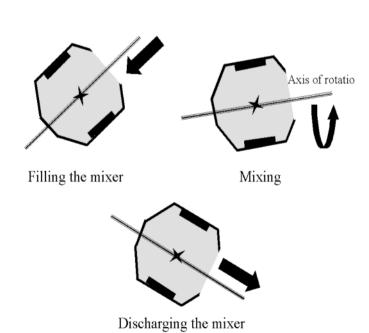


Fig.5.8 Operations performed to get good throughly mixed fresh concrete using tilting drum mixer

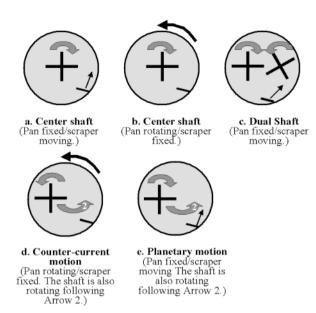


Fig.5.9 Various configuration of Pan Mixers

Fig 5.11 shows the effect on 28-day compressive strength as compared to the addition of water alone to restore the slump. Mixing was carried out for 5 minutes before slump tests.

It can be seen from Fig.5.11 that compressive strength was reduced when water was added at any period. However, it increased by nearly 5 MPa when the slump was restored after 2 hours by the addition of the retarder. At 4 hours strength also increased when slump was restored by the addition of retarder and water. After 6 hours only a slight reduction in strength is noted. These observations show that scientific re-tempering can be possible for field application.

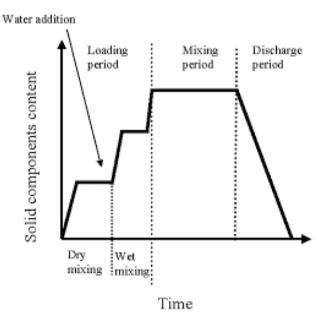


Fig.5.10 Mixing Schedule

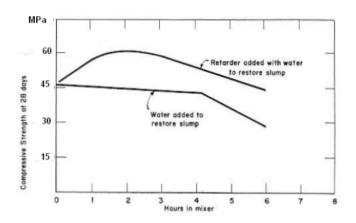


Fig.5.11 Effect on compressive strength of using water / retarder for restoring the slump

5.3 Transporting Concrete

Concrete is produced using one of the following two methods:

1.Ready mixed concrete

Concrete produced away from the site of construction is transported in ready-mix trucks and delivered at site requiring no further treatment before placing in forms ks is called ready mixed concrete.

2.Site mixed concrete

In site mixing, the plastic concrete, from the mixer is transported to the forms before placing.

The various issues related to transportation of ready mixed concrete is discussed in a later chapter on Ready mixed concrete. Herein the aspects related to transportation of site mixed concrete are elaborated.

The main objective of transporting concrete is to ensure that the parameters such as water-cement ratio, slump, consistency, air content and uniformity are not changed before reaching the forms for placing. The process of transportation should not lead to either loss of slump or segregation.

The following methods are used for transporting concrete

i.Discharged directly into forms by short Chutes:

Short chutes in a semi circular shape stiffened at intervals are simple and economical to use. Free fall of concrete from a height of more than 2m must be avoided.

ii.Barrows

Manual Wheel Barrows of approximately 80 kg capacity can be used for long horizontal distances. For major works power barrows of 800 kg capacity up to 300 m hauls are used with advantage.

iii.Dumpers and trucks

These are used for horizontal long hauls. Because of jolting, especially if the terrain is rough, the concrete during transit has the risk of segregation.

iv. Elevating towers and Hoist

In multi storied buildings, elevating towers are used for lifting concrete buckets. The lifted concrete is then distributed by either chutes or barrows. This type of transportation can be used where ever high lifts are required.

v.Monorail system

In tunnels and in dam sites, a single track is laid to

carry a monorail power wagon which moves at a speed of 80 m/min. This type of transportation can be used for covering long distances.

vi.Cranes and Cable way

When concreting is to be done in a large project covering mountains and valleys, Cranes and cable way are used to provide there dimensional transport enabling both horizontal and vertical movement. Depending on the site condition, the type of crane can be chosen. It may be a derrick, Crawler or wheel mounted.

vii.Belt Conveyor

It provided for long hauls. It is not very much recommended because of its vulnerability to encourage segregation. The initial setting up cost is also high. Discharge can be as high as 115 cum/ hour.

viii.Concrete bucket and skip

These are common equipments. Fig.5.12 shows a typical concrete bucket. The capacity of skip varies from about 0.2 m3 to 10 m3.



Fig.5.12 Concrete bucket and skip

The discharges of concrete are controlled by shape of the gate and proper flow.

ix. Tremie

Tremie pipe is used to transport concrete under water. It consists of a pipe and a funnel at the top. The trmie is first filled with bentonite slurry and then it is displaced fby wet concrete. The use of tremie is further discussed in a later chapter.

x. Concrete pumps and pneumatic placers

A concrete pump is used for transporting concrete by pumping. There are two types of concrete pumps.

In the first variety concrete pump is attached to a truck. It is known as a trailer-mounted boom concrete pump because it uses a remote-controlled articulating robotic arm (called a boom) to place concrete accurately. Boom pumps are used on most of the larger construction projects as they are capable of pumping at very high volumes and because of the labour saving nature of the placing boom. They are a revolutionary alternative to truck-mounted concrete pumps.



1. In this type, concrete pump is either mounted on a truck or a trailer and is known as a truck-mounted concrete pump. It is also referred to as a line pump or trailer-mounted concrete pump depending on where it is mounted. This pump requires flexible concrete placing hoses attached to the outlet. These hoses are linked and lead to wherever the concrete is to be placed.

xi. Boom Conveyors

Using Boom conveyors concrete can be placed at locations like the raft slab of a basement, as shown in Fig.5.13. Concrete with a flowing character can be efficiently placed at even awkward locations with ease.

5.4 Placing concrete

The placing operation consists of equipment, layout, proposed procedures and methods. These should be planned and no concrete should be placed until formwork is inspected and found suitable for placement. Equipment for conveying concrete should be capable of practically continuous flow of concrete during depositing. The drop0 in height during placement should not be such as to encourage segregation.

Concrete should be placed in its final position before the cement reaches its initial set. The placed concrete must be compacted in its final position within 30 minutes of leaving the mixer. After final compaction placed concrete should not be disturbed.

While placing, concrete should be deposited as nearly as practicable directly in its final position. Concrete should not be moved or re-handled or caused to flow in a manner which may encourage disturbance to the final position. In particular, following aspects may cause weakness of the finished concrete

- segregation where concrete is dropped as in columns and walls
- 2. loss of materials,
- 3. displacement of reinforcement,
- 4. Dislocation of shuttering or embedded inserts or
- 5. cracking and loss of strength.
- 5.4.1 Methods of placing

i. Free fall method

Concrete is placed by the free fall from top to the bottom. The concreting should be done at the centre first and it should flow to the edges. For most structures this type of placement is adopted. To avoid segregation the free fall height should be restricted.

ii. Pump line method

In this method concrete is pumped through a pipe. The pipe usually flexible can be positioned to fill the formwork uniformly.

iii. Tremie method

Gravity feed concrete into the tremie is adopted generally for under water concreting. Concrete is introduced into the hole and feed by pump into the tremie. The concrete falls by gravity and continuously placed till the pipe is full.

5.4.2 Striking forms

The form work and false work stability is important and should be checked carefully. Generally three checks are made

- 1. Structural strength of members and connections
- 2. Lateral stability and
- 3. Overall stability

The time at which striking is permitted is usually related to strength of concrete. The determination and proper assessment of compressive strength is important. This involves many factors such as water-cement ratio, type of cement used and temperature etc. the main criteria for removal of formwork from walls and columns is their strength achievement such that mechanical damage is avoided during striking.

5.5 Compaction

Compaction is intended to expel the entrapped air and coarse and fine aggregate particles in wet concrete mass are packed together without any voids. This action is intended to increase the density concrete. In addition good compaction helps to achieve the following:

- i. Increases the strength of concrete
- ii. Increases the bond between the concrete and reinforcement
- iii. Increases the abrasion resistance
- iv. Decreases permeability
- v. Aids in reducing shrinkage and creep

Proper compaction makes the concrete flow to nook and corner of the formwork avoiding formation of honeycombs. This helps in obtaining good finish especially for vertical surfaces. Normal concrete, when it is placed in formwork will contain 5 to 25 % of air voids. By good compaction this can be reduced to 1 to 3 %. Fig.5.14 shows the relationship between strength and voids present for a typical M25 concrete. It can be seen that presence of 10 % air voids reduces the strength by more than 50%

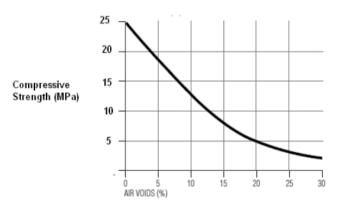
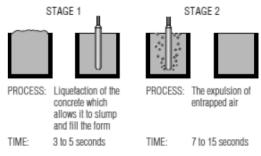


Fig. 5.14 Loss of strength due to presence of air voids

Fig 5.15 shows the two stages of compaction, namely (i) the initial liquefaction of concrete when the aggregates are made to slump and fill the formwork and (ii) the final expulsion of entrapped air. The first stage takes about 3 to 5 seconds and the second stage takes 10 to 20 seconds when the entrapped air bubbles tend to come to the surface. The operation of compaction should be continued until air bubbles no longer comes to the surface.



TOTAL TIME (for both stages of the process): 10 to 20 seconds

Fig.5.15 the two stage process of compaction

5.5.1 Methods of compaction

There are the following two methods of compaction

- 1. Hand compaction
- 2. Mechanical compaction

1. Hand Compaction

Hand Compaction is used for minor unimportant structures because of its inefficiency. The mix design used should suit the hand compaction with respect to the slump. The following three approaches are used for hand compaction.

- **a. Roding:** A 2m long rod of 16 mm diameter is used to poke the concrete at corners of formwork to expel entrapped voids. The thickness of layers used for enabling Roding is about 10 to 15 cm.
- **b. Ramming:** Used for compacting on the ground in foundations etc. for plain concrete. Generally not used for RCC.
- **c. Tamping:** the top surface for slabs is generally beaten down by wooden rammers of thickness 10cm with a handle. This is intended to achieve both leveling and compaction simultaneously.

2. Mechanical Compaction

Mechanical vibration causes expulsion of air and enables compaction of concrete. Various types of mechanical vibrators are used for this purpose. The main types used are the following:

- i. Immersion vibrators (Internal or Needle vibrators)
- ii. Surface vibrator
- iii. Form vibrator
- iv. Table vibrator
- v. Platform vibrator

i. Internal needle vibrators:

These are most common type of vibrators used in a majority of construction sites. They consist of a tubular housing within which an eccentric weight rotates and thus induces vibration on the surrounding mass. The frequency range adopted is 3000 to 5000 rpm. The diameter of the needle varies from 20 mm to 75 mm. They are available in lengths of 25 cm to 90 cm. Depending on the diameter of the needle and frequency of vibration the zone of influence varies from 100 to 600 mm.

Immersion vibrators are driven by a flexible shaft connected to a motor, or an electric, petrol or diesel motor situated within the tubular housing or by compressed air. The first one is more common in construction sites in India.

Needle vibrators should be inserted vertically into fresh concrete as quickly as possible and held stationary till air bubbles coming out ceases to rise to the surface. This usually takes about 20 seconds. The vibrator should be slowly withdrawn and reinserted vertically near in an adjoining position. These operations are repeated till all the concrete is well compacted. A typical pattern of needle vibrator insertion locations in plan is shown in Fig.5.16 along with the correct method of insertion

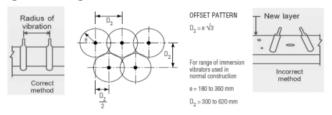


Fig.5.16 correct method of use of needle vibrator

ii. Surface vibrator

Surface vibrators are applied to the top surface of concrete. They act downwards from there. They are used to compact large slabs, industrial floors, pavements etc. they also aid in leveling and finishing the surface of the slab/ pavement. Generally these are not effective beyond 15 to 20 cm. Vibrating beam screed is the most common type of surface vibrator.

A vibrating beam screed consists of a metal beam on which a vibrating unit is attached. In general the centrally mounted vibrating unit has a span of 6m. A typical unit is shown in Fig.5.17. These units are pulled by hand to effect the compaction. As can be seen the surface vibrators act from top towards bottom and hence as we go down the efficiency of compaction decreases. Hence the surface vibrators are effective for slabs up to 150mm.

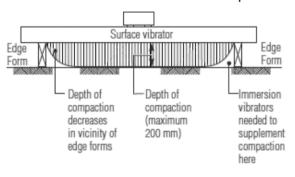


Fig.5.17 Typical surface Vibrator

iii. Form vibrator

Form vibrators are also called "external vibrators". These are used in members where the reinforcements are congested. The vibrators are clamped to formwork and when the form vibrates the concrete gets compacted. For this application formwork should also be designed to resist the forces imposed on it by the attached vibrator.

iv.Table Vibrator

This type is usually adopted in laboratories for small specimens are put on a vibrating table. Standard cube and cylinders cast as companion specimens in the lab are generally subjected to compaction by the Table Vibrators.

v. Platform vibrators

These are similar to table vibrators but are of large size. They are used in precast industries to vibrate large panels such as wall or hollow core slab units.

5.5.2 Under-vibration

Concrete is not compacted well enough due to insufficient vibration which is known as under-vibration. It reduces the strength and durability of concrete. It can also affect the surface finish. Under vibration is also the normal cause for honeycombs in concrete. Under vibration can be avoided by proper supervision of vibration duration and spacing of insertion of needles to avoid shadow areas not vibrated.

5.5.3. Over Vibration

Excessive duration of vibration causes segregation of lager particles from finer ones. It is characterized by excessive thickness of mortar at the surface of concrete. The surface concrete will also have frothy appearance. The problems usually occur in poorly proportioned mixes. Controlling the water –cement ratio and controlling the duration of operation of vibrator are a few measures that are adopted to overcome this problem

5.5.4 Re-vibration

Generally, concrete must be vibrated as soon as it is placed in the formwork. However, in certain cases, to ensure a good bond between the first layer of concrete already laid and fresh concrete, it is vibrated again. This is called re-vibration. The variation of strength due to revibration is shown in Fig. 5.18.

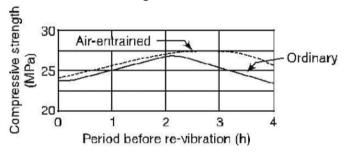


Fig. 5.18 Variation of strength due to re-vibration (Source: Vollick 1958)

It is necessary to vibrate concrete when it is fresh, before the initial setting. However, when concrete is laid in layers, the bottom layer stiffens before the top layer is laid. In order to ensure a good bond between layers, the top of the bottom layer can be re-vibrated if it can regain its plastic state. Based on experimental results, it has now been established that concrete can be re-vibrated.

The improvement in strength because of re-vibration results from the expulsion of trapped water and is found to be the highest in concrete that is susceptible to bleeding. In spite of the above advantages, re-vibration is not ordinarily recommended or practiced because it involves one more step in the production of concrete. Careless re-vibration applied after considerable time has elapsed reduces the strength of concrete.

5.6 Curing

"Curing" means maintaining satisfactory moisture content and temperature in fresh concrete in order to achieve the desired strength and hardness.

5.6.1 Importance of curing

Drying removes the water needed for hydration. Without adequate water and due to insufficient hydration, concrete tends to be weak. Temperature is an important parameter to consider for proper curing. In outdoor concreting, temperature, humidity, wind velocity, etc. contribute to the evaporation loss of water. Properly cured concrete has better durability and better surface hardness, and is less permeable.

Powers (1932) has shown that hydration is significantly less when the relative humidity in the pores drops below 80%. Lerch (1951) conducted some tests to study the effects of air temperature, wind velocity, and the temperature of concrete on the loss of water available for hydration. Figures 5.19–5.21 present his findings.

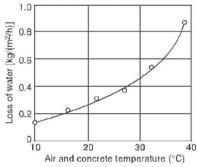


Fig. 5.19 Effect of air temperature on loss of water from concrete

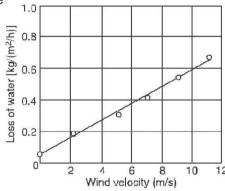


Fig. 5.20 Effect of wind velocity on loss of water from concrete

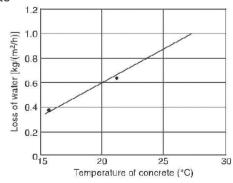


Fig. 5.21 Effect of temperature of concrete on loss of water from concrete

Fig. 5.22 shows the effect of loss of moisture on the reduction of humidity in the pores.

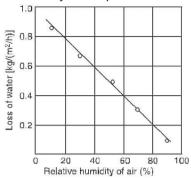


Fig. 5.22 Effect of relative humidity on loss of water from concrete (Source: Neville 1963)

The prevention of loss of moisture from concrete is important not only from the point of view of strength development but also from that of prevention of plastic shrinkage, decrease in permeability, and improvement of resistance to abrasion. The loss in the 28-day strength seems to be directly related to the loss of moisture during the first three days. From Fig. 5.23, it is evident that a 5% loss in moisture leads to nearly 75% loss in strength. Hence, continuous curing for first three days is a must. Intermittent curing seems to be even worse than no curing at all.

To sum up the advantages of careful control of moisture and temperature in curing results in:

- Strength of concrete is more for favorably cured concrete.
- ii. Wearing strength is also better
- iii. Drying shrinkage and cracking are reduced
- iv. Greater impermeability results
- v. We get a concrete of better durability

 Efficient curing results if the following is adopted:
- i. Start curing operation as soon as possible before concrete dries up.
- ii. For proper curing concrete needs moisture.
- iii. Continuous curing is a must. Alternate wetting and drying encourage cracking.
- iv. Ideal curing temperature is 23 degree C
- v. Cure concrete for at least 10 days

5.6.2 Methods of curing

Concrete is kept moist by the following methods:

- Maintaining the mixing water in concrete without evaporation during early strength development period. Ponding, immersion, spraying, fogging, and providing saturated wet covering prevent evaporation and maintain a cool temperature which is beneficial in hot weather.
- ii. By reducing the loss of mixing water from the surface by covering the concrete with impervious paper, plastic sheet or by applying membrane forming curing compounds or by retaining the impervious formwork for the required period of curing.
- iii. By accelerating the strength gain by heat and moisture under pressure to the concrete. This is achieved by heating coils, applying live steam, or electrically heated forms or pads.

5.6.3 Duration of curing

Curing should start early and be continued till required. The period of curing to be adopted depends on a number of factors such as severity of temperature, drying conditions, humidity, and the prevailing wind conditions. Table 5.3 gives the periods of curing for normal concretes. This table can be adopted for rapidly hardening or slowly setting concrete with suitable modifications.

5.7 Finishing concrete surface

A well concrete surface does not require external plastering. Often plastering is resorted to hide the defects in the manufactured surface of concrete. This should be avoided. It is best to have exposed form finish

5.7.1 Different types of finishes

The following three types of rubbed finishes can be provided:

- i. Smooth rubbed finish
- ii. Grout cleaned finish
- iii. Cork floated finish
- Smooth rubbed finish: this is applied within a day after removal of formwork. The wetted surface is rubbed with Carborundum abrasive unit until the desired finish is attained. No external grout is used.
- ii. Grout cleaned finish: this is achieved by the application of grout one part of Portland cement and 1.5 parts of fine sand mixed with enough water to achieve the consistency of a thick paint. White cement is added to match the surrounding concrete. The grout is scrubbed into the voids. Then the surface is rubbed and kept damp for 36 hours
- iii. Cork Floated finish: Requires a stiff grout to be applied to the wetted surface. Proportions of sand and cement are 1-to-1, with white cement included as needed for color matching. Compress this grout into the voids by grinding with a slow-speed grinder. Use a cork float to produce the final finish with a swirling motion.

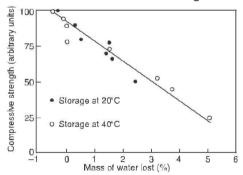


Fig. 5.23 Relation between the compressive strength of concrete at 28 days and the loss of water during the first three days (Source: Nischer 1982)

Table 5.3 Minimum curing period in days

	Temperature (°C)				C)
	5	10	20	30	40
No sun, RH* ≥ 80	6	5	4	3	3
Medium sun and winds, RH ≥ 50	8	7	6	5	4
Strong sun or high winds, RH ≥ 50	10	9	8	7	6

^{*}RH denotes relative humidity (%)

5.8 Autogenous Healing

Fine cracks appear in concrete in the initial stages due to shrinkage and temperature. If these cracks are allowed to close without lateral displacement under moist conditions, they tend to heal completely due to hydration of the cement that had not hydrated thus far. This phenomenon is called autogenous healing of concrete. The width of cracks that can undergo this type of healing is estimated to be 0.1–0.2 mm. Moisture conditions and the application of minute pressure help autogenous healing (Fig. 5.24). Cracks having smaller widths heal faster (within about a week).

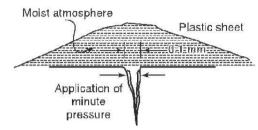


Fig. 5.24 Autogenous healing encouraged by favourable forces



Tax Corner - சென்ற இதழின் தொடர்ச்சி



திரு. S.D. கண்ணன் Taxation Committee

BAI Southern Centre organized a seminar by inviting senior auditor/advocate CA R. Subramaniam for clarity on Joint Development Agreement and GST rates pertaining to builders/promoters on 23-02-2021

We bring forth salient features of the seminar as per the following brief note.

9. Ongoing project:

- (a) A Commencement certificate in respect of the project, where required to be issued by the competent authority, has been issued on or before 31st March, 2019, and it is certified by any of the following that construction of the project has started on or before 31st March, 2019;
 - (i) an architect registered with the Council of architecture constituted under the architects Act, 1975 (20 of 1972); or
 - (ii) a chartered engineer registered with the Institution of Engineers (India); or
 - (iii) a licensed surveyor of the respective local body of the city or town or village or development or planning authority.
- **(b)** where commencement certificate in respect of the project, is not required to be issued by the competent authority, it is certified by any of the authorities specified in sub-clause (a) above that construction of the project has started on or before the 31st march, 2019.
- **(c)** Completion certificate has not been issued or first occupation of the project has not taken place on or before the 31st March, 2019.
- (d) Apartments being constructed under the project have been partly, or wholly, booked on or before the 31st March, 2019.

10. Carpet area

As per explanation 4 (xxvi) of notification No.3/2019 ibid, the definition would be as per section 2 (k) of the RERA which defines the term carpet area as:

The net usable floor area of an apartments, **Excluding** the area covered by the external walls, areas under services shafts, exclusive balcony or verandah area and exclusive open terrace area, but

! Includes the area covered by the internal partition walls of the apartment.

Explanation-

For the purpose of this clause, the expression "exclusive balcony or verandah area" means the area of the balcony or verandah, as the case may be, which is appurtenant to the net usable floor area of an apartment, meant for the exclusive use of the allottee; and "exclusive open terrace area" means the area of open terrace which is appurtenant to the net useable floor area of an apartment, meant for the exclusive use of the allottee;

16 Southern Builder

11. Floor Space Index (FSI)

"Floor Space Index (FSI)" shall mean the ratio of a building's total floor area (gross floor area) to the size of the piece of land upon which it is built.

-in a building or on a plot of land, used or intended to be used for any residential or commercial use such as residence, office, shop, showroom or godown or for carrying on any Business, occupation, profession or trade, or for any other type of use ancillary to the purpose specified.

12. DEVELOPER

A person who constructs or causes to be constructed an independent building or a building consisting of apartments, or converts an existing building or apart there of into apartments, for the purpose of selling all or some of the apartments to other persons and includes his assignees;

RATES OF TAX - ONGOING PROJECTS (OPTION NOT EXERCISED) OR **NEW PROJECTS**

Nature	Residential	Commercial	Mixed Projects	Mixed
	Projects	Projects	(RREP)	Projects (REP)
Affordable	1%	12%	1%	1%
Non-	5%		5%	5%
Affordable				
Commercial			5%	12%
ITC	No	Yes	No	Proportionate
				ITC

EXEMPTIONS UNDER GST

S. No	Description	Rate	Condition
3	Pure services (excluding works contract service or other composite supplies involving supply of any goods) provided to the Central Government, State Government or Union territory or local authority or a Governmental authority 1[or a Government Entity]	Nil	Nil
3A	Composite supply of goods and services in which the value of supply of goods constitutes not more than 25 percent of the value of the said composite supply provided to the Central Government, State Government or Union territory or local authority or a Governmental authority or a Government Entity by way of any activity in relation to any function entrusted to a Panchayat under article 243 G of the Constitution or in relation to any function entrusted to a Municipality under article 243 W of the Constitution.	Nil	Nil

RESTRICTION AND CONDITIONS

- 1. Tax is to be paid by cash by debiting Electronic cash Ledger.
- 2. Input tax credit used in supplying the services not to be taken
- 3. Debit in the Electronic credit ledger or cash ledger an amount equivalent to be Input tax credit attributable to construction in a project time of supply of which is on or after 1/04/2019.
- 4. The developer-Promoter shall pay tax on supply of construction of apartments to the land owner promoter.
- 5. The land owner shall be eligible for credit of taxes by the developer.
- 6. Provided the land owner also in further supply and pay tax on the same which is not less than the amount of tax changed from him on construction of such Apartments.
- 7. Promoter shall maintain project wise account of inward supplies from registered and unregistered supplies.

1. Eighty percent of the value of input and input services other than services by way of

- Grant of development of rights I.
- II. upfront payment in the form of Premium/ development charges
- III. FSI including additional FSI
- IV. Electricity, high speed diesel,
- V. Motor spirit, natural gas shall be received from registered supplier only.
- VI. Input/input services on which tax is paid on reverse charge basis shall be deemed to have been purchased from registered person.
- 2. Input and input services received from registered supplier during the financial year on part of the financial year till the date of issuance of completion certificate or first occupation falls short of the 80% shall be paid by the Promoter on value of input and input services comprising such short fall at the rate of 9% on Reverse Charge basis.
- **3.** Cement is received from an unregistered person the promoter shall pay tax on supply of such cement at the rate of 28% [cement rate is 28%]
- **4.** Calculate tax payment on the short face at the end of the financial year shall submit the same electronically on the common portal by the end of quarter following the financial year [30th June]

- 5. The tax liability on the short fall of inward supplies from unregistered person shall be added to his output tax liability in the month not later than the month of June following the end of the financial year.
- **6.** Tax on cement received from unregistered person shall be paid in the month in which cement is received.
- 7. Input tax credit not availed shall be reported every month by reporting the same as in eligible credit in GSTR3B. [Row no. 4(D)(2)]
- **8.** Promoter shall be liable to pay tax at the applicable rate on reverse charge basis on such proportion of value of development rights or FSI as it is attributable to the residential apartments which remain un-booked on the date of issuance of completion certificate or First occupation.
- **9.** Tax payable under reverse charge basis shall be
 - In case of Affordable apartments 0.5%
 - 2.5% In case other than Affordable residential apartments remaining unblocked
- 10. The developer shall maintain project wise account of inward supplies from registered and unregistered suppliers and calculate the shortfall at the end of the financial year.

Illustration 1:

A promoter has procured following goods and services [other than capital goods and services by way of grant of development rights, long term lease of land or FSI for construction of a residential real estate project during a financial year.

Sl.No.	Name of Input goods and services	Percentage of input goods and services received during the financial year	Whether inputs received from registered supplier?(Y/N)
1	Sand	10	Y
2	CEMENT	15	N
3	Steel	20	Y
4	Bricks	15	Y
5	Flooring tiles	10	Y
6	Paints	5	Y
7	Architect/designing/ CAD drawing etc.	10	Y
8	Aluminum windows, Ply, Commercial wood	15	Y

In this example, the promoter has procured **80 percent** of goods and services [other than services by way of grant of development rights, long term lease of land (against upfront payment in the form of premium, salami, development charges etc.) or FSI (including additional FSI), electricity, high speed diesel, motor spirit, natural gas|, from a GST registered person.

However, he has procured cement from an unregistered supplier. The promoter shall pay tax on supply of such cement at the applicable rate on reverse charge as for each and every month

Illustration 2:

A promoter has procured following goods and services [other than services by way of grant of

Development rights, long term lease of land (against upfront payment in the form of premium, salami, development charges etc.) or FSI (including additional FSI), electricity, high speed diesel, motor spirit, natural gas], for construction of a residential real estate project during a financial year.

S1.No.	Name of Input goods and services	Percentage of input goods and services received during the financial year	Whether inputs procured from registered supplier?(Y/N)
1	SAND	10	N
2	CEMENT	15	N
3	Steel	15	Y
4	Bricks	10	Y
5	Flooring tiles	10	Y
6	Paints	5	Y
7	Architect/designing/CAD drawing etc.	10	Y
8	ALUMINIUM WINDOWS	15	N
9	PLY, COMMERCIAL WOOD	10	N

In this example, the promoter has procured **50** percent of goods and services from a GST registered person. However, he has procured and, cement and aluminum windows, ply and commercial wood etc. from an unregistered supplier.

Thus, value of goods and services procured from registered suppliers during a financial year falls short of threshold limit of 80 percent to fulfill his tax liability on the shortfall of 30 percent from mandatory purchase, the promoter has to pay GST on cement at the applicable rate on reverse charge basis. After payment of GST on cement, on the remaining short fall of 15 percent, the promoter shall pay tax @[18(9+9)] percent under RCM.

JOINT DEVELOPMENT BY LAND OWNERS AND PROMOTORS

Land Owner Transferring Developmental Rights to Promoters PROMOTOR PROVIDING SERVICE TO LAND OWNER

Is he liable to pay tax on land owner's portion?

Whether the Land Owner entitled for Input Tax Credit?

When the Land Owner sells after obtaining the Completion Certificate, whether he is Liable to pay GST?

Land owner sell his portion simultaneously with the Builder

Can the Land Owner claim Refund?

Transfer of Developmental Right is Exempted

- ❖ S.No.41A-Services provided by Landowners. To promoters in the form of TDR, transfer of FSI or additional FSI is exempted to the extent it is related to the residential apartments in a complex on which GST is paid by the promoter. When such residential apartments are sold after completion, without payment of GST, to that extent, GST at 1% (for ARAs) or 5% (for other than ARAs) shall be paid by the Promoter under RCM.
- **S.No.41 B** Services provided by Landowners, to Promoters in the form of long term lease of land against lump sum payment is exempted to the extent it is related to be residential apartments in a complex. The exemption is only for lump sum amount paid and not for any periodical payments made. When such residential apartments are sold after completion, without payment of GST, to the extent, GST at 1% (for ARAs) or 5% (for other than ARAs) shall be paid by the Promoter under RCM.
- ❖ S.No.41B Services provided by Landowners, to Promoters in the form of long term lease of land against lump sum payment is exempted to the extent it is related to be residential apartments in a complex. The exemption is only for lump sum amount paid and not for any periodical payments made. When such residential apartments are sold after completion, without payment of GST, to the extent, GST at 1% (for ARAs) or 5% (for other than ARAs) shall be paid by the Promoter under RCM.

CASE STUDY

- ❖ X Ltd. and Y Ltd. Have entered into a Joint Development Agreement (JDA) after 01.04.2019 for construction of 100 apartments wherein 40 apartments are allocated to landowner and 60 apartments are allocated to developer.
- ❖ The carpet area of each apartment would be 2,000 sq.ft.
- ❖ Out of the 60 apartments, developer sells 50 apartments prior to the cut-off date (i.e. the earliest of the date of completion certificate or occupancy certificate)
- ❖ Landowner sells all apartments before cut-off date.
- ❖ The value of apartments sold to independent buyers nearest to the date of JDA is Rs. 1 Crore.
- ❖ The value of apartments sold to independent buyers nearest to the cut-off date is Rs.1.5 Crore.
- ❖ What is the liability under GST with respect to the above JDA entered?
 - a. (a)With respect to the construction services provided by developer to landowner, GST @ 5% shall be discharged as per Notification No. 3/20419ibid on Rs. 1 Crore* 40 apartments * 5%= Rs. 2 Crores.
 - b. (b)With respect to development rights transferred by landowner to developer, GST is not applicable to the extent of 50 apartments which areas old prior to cut-off date, as the same is exempted vide notification No. 4/2019 ibid.
 - c. (c)However, with respect to 10 flats un-sold after cut-off date, the developer would be liable to pay GST under RCM in terms of Notification No.5/2019 ibid. The liability would be lower of the following-
- (i) (GST payable on development rights for all 100aparments) * Carpet area of apartments which remain un-booked as on the cut-off date/Total carpet area of the apartments.
- =(Rs. 1 Crore*100*18%)*(10*2000)/(100*2000)=Rs.180,00,000.
- (ii) Value of un-booked apartments as on cut-off date * 5%
 - =Rs. 1.5 Crore * 10 apartments * 5% = Rs.75,00,000/-

Thereby, liability would be Rs.75,00,000/-

(d) Further, the date on which developer is required to pay under RCM is the cut-off date.

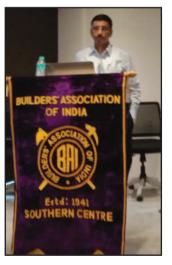
16.03.2021 அன்று நடைபெற்ற RERA குறித்த விழிப்புணர்வு கலந்தாய்வுக் கூட்டம்















02.03.2021 அன்று Chennai Flat Promoters Association கூட்டத்தில் தேசியத்தலைவர் திரு. Mu. மோகன், தென்னக மய்யத்தலைவர் திரு. L. சாந்தக்குமார், தமிழ்நாடு மாநிலப் பொருளாளர் திரு.S. ராமப்பிரபு ஆகியோர் கவுரவிக்கப்பட்டனர்









16.03.2021 அன்று நடைபெற்ற EC/GC கூட்டத்தில் அகில இந்தியத் தலைவர் திரு. Mu. மோகன், 2021-22 அகில இந்திய துணைத்தலைவர் திரு. S. அய்யநாதன், தமிழ்நாடு மாநிலத்தலைவர் திரு. R. சிவக்குமார் அவர்கள் மற்றும் மாநில நிர்வாகிகள் கவுரவிக்கப்பட்டனர்



05.03.2021 அன்று நடைபெற்ற நமது பொதுக்குழு உறுப்பினர் திரு. Y. சீனிவாசன் அவர்களின் இல்லத் திருமண விழா



31.03.2021 அன்று மும்பை தலைமையகத்தில் தேசியத் தலைவர் திரு. Mu. மோகன் அவர்கள் 2021-22ம் ஆண்டின் தேசியத் தலைவர் திரு. R. N. குப்தா அவர்களிடம் பதவிப் பொறுப்பை ஒப்படைத்தாா











16.03.2021 WORKSHOP ON REAL ESTATE REGULATORY AUTHORITY ACT

Tamilnadu & Andaman & Nicobar Islands

Real Estate Sector

- Second largest employer after Agriculture.
- Nearly 4 Crore work force employed in the
- Real Estate Sector
- Around 80% are unskilled labour force
- Directly impacts over 250 ancillary industries such as Cement, Steel, Transport, Paint, Brick, Building Materials and Consumer Durables.

But it was totally an unregulated sector.

Need for the Act

- •Absence of Professionalism, standardization and adequate consumer protection in present system.
- Absence of transparency and accountability in transactions.
- Lack of uniform regulatory environment.

Act

REAL ESTATE (REGULATION AND DEVELOPMENT) ACT, 2016

Government of India notified Real Estate (Regulation and Development) Act, 2016 on 26th March 2016.

Objectives

Regulation and promotion of the Real Estate Sector.

- •Ensure sale of plots, apartments or commercial buildings in an efficient and transparent manner.
- Protect the interest of home buyers in the Real Estate Sector.
- To establish an adjudicating mechanism for speedy dispute redressal.
- ◆Establish the Appellate Tribunal to hear appeals from the decisions or orders of the Real Estate Regulatory Authority and the Adjudicating Officer.

Rule

- ◆Tamil Nadu Real Estate (Regulation and Development) Rules, 2017 notified on 22.06.2017 vide G.O.Ms. No.112, H&UD Dept., to implement the provisions of the Central Act.
- ◆Tamil Nadu Real Estate Regulatory Authority (General) Regulations, 2018 notified on 13.06.2018

Authority

- Permanent Authority established during February 2019.
- Authority comprises of a Chairperson and two Members.
- Authority has its Jurisdiction over Tamil Nadu and Union Territory of Andaman & Nicobar Islands.

Functions of Authority

- ◆Registration of Real Estate Projects
- ◆Registration of Real Estate Agents
- ◆Complaints Management
- Salient Features
- Shall not advertise, market, book, sell of any plot, apartment or building without registering it with RERA.
- Registration is mandatory for plots, residential buildings and commercial buildings.
- All plots, residential and commercial buildings meant for sale with land extent of more than 500 square metres or more than eight apartments inclusive of all phases will have to be registered with RERA.

RERA & its Impact

- ◆Impact of the RERA Act is beneficial both from the perspective of Home buyers as well as the Promoters. Impact Consumers
- ◆RERA is an exclusive Authority dealing with complaints

- of Home buyers relating to Real Estate Sector.
- •It is preventive rather than a curative.

It stipulates

- Promoter shall not give false statement and incorrect information in the advertisement in any media.
- No disclaimer clause should be given in the Advertisement.
- Promoter shall furnish information relating to approved plan and other information buyer/allottee is entitled to.
- Promoter shall inform the allottee the stage-wise time schedule of completion including the provision of amenities.
- Promoter while issuing advertisement or prospectus should mention prominently the website address of RERA and the Registration No. given by the RERA.
- •Shall not accept more than 10% of the cost of the apartment on booking.
- Shall accept more than 10% of the cost of the apartment, plot or building after registering the Sale Agreement.
- Agreement for sale and construction agreement as per the format notified.
- Not mandatory to substitute with the prescribed form of agreement executed by the allottee prior to the notification of the Act.
- Agreement already executed legally valid and enforceable under the Act.
- ◆Building shall be completed as per approved plan
- •Building shall be completed as per the specifications committed in the agreement.
- Promoter shall complete the building in accordance with the terms of the agreement by the date specified.
- All common amenities/facilities as agreed in the terms of agreement/brochure to be completed and handed over.
- Additions and alterations to the approved plan, specifications and amenities in respect of the Apartment shall not be done without the consent of the home buyer.
- Any other alterations or additions in the approved plan within the project cannot be done without the consent of the two-thirds of the allottees, other than the promoter.
- Promoter shall not transfer his majority rights, and liabilities to a third party without obtaining prior written consent from the 2/3rd allottees except the promoter and without the written approval of the Authority.
- Promoter is bound to rectify the structural defects within a period of 5 years from the date of handing over possession without any charge within 30 days.
- •Advertisement for sale of apartment shall be based on the Carpet Area only.
- ◆The promoter shall sell flat on Carpet Area basis only
- Carpet Area

Excluding:

- i. External walls
- ii. Service shafts
- iii. Exclusive balcony or verandah area
- iv. Exclusive open terrace area

Including:

i. Internal partition walls

CHECK LIST - BUILDING

SI. No.	Particulars	Pa	ges
		From	То
1	Form'A' (duly filled)		
2	In case of Individual:		
	a) Name		
	b) Father's Name		
	c) Occupation		
	d) Permanent Address		
	e) Mobile Number & Email ID		
2	f) Photograph		
3	In case of Firm: a) Name of the Firm		
	b) Address with Contact No. and Email ID	-	
	c) Registration Certificate – Copy to be enclosed	-	
	d) Main objectives of the Company		
	e) Mobile Number & Email ID		,
	f) Name, Photographs and Address of Chairman of the Governing Body / Partners / Directors, etc.,		
3a	Details of Land Owner only in case of Joint Venture:		
	a) Name		
	b) Father's Name		
	c) Occupation		
	d) Permanent Address		
	e) Mobile Number & Email ID		
	f) Photograph		
4	PAN No. and Copy of PAN CARD		
5	Copy of Patta and Sale Deed / PLR. If the applicant now applied for registration is different from the Planning Permit obtained applicant, link document should be furnished along with document flow chart		
6	Copy of EC (From the date of PP Approval to 15 days prior to the date of submission to TNRERA)	2	
7	I. Details of Approval		
	a) Copy of Planning Permission Approval Letter		
	b) Copy of Planning Permit		
	c) Copy of one set of Approved Plans with Local Body seal		
	d) Copy of Building Permit / Approval Letter from Village Panchayat		
	II. Copy of NOC and Clearance if applicable		
	a) DFRS – (Fire Service)		
	b) AAI – (Airport)		
	c) IAF – Indian Air force		
	dy and allowed the following		

SI. No.	Particulars		ges
		From	То
	e) Traffic Police		
	f) Swimming Pool		
	g) ASI		
	h) Revenue Department		
	i) EIA		
8	Form 'B' – in Rs.20/- stamp paper duly signed by the promoter a) Project Completion Date - b) Validity of Planning Permit -		
9	Total Project Cost — [Land Cost (Market Value) + Development (Infrastructure) + Building Construction + Fees Charges paid]		
10	Audited Balance Sheet of the promoter for the preceding financial year		
11	Structural Stability Certificate with design calculations with words structurally is safe and sound		
12	Geo Technical Report – Soil Test		
	Number, type and the carpet area of apartments for sale in the project along with the area of the exclusively balcony / verandah / open terrace areas for sale, UDS and No. of Car Parking in the following format		
13	Color Colo		
	Area statement signed by Architect or Project Engineer		
14	[A) _ Co (10		
14 15	Area statement signed by Architect or Project Engineer		
15	Area statement signed by Architect or Project Engineer Original Certificate from the Bank as per the Format to be enclosed (Sec.4(2)(1)(D) of the Act.) (Format available in TNRERA website)		
1986	Area statement signed by Architect or Project Engineer Original Certificate from the Bank as per the Format to be enclosed (Sec.4(2)(1)(D) of the Act.) (Format available in TNRERA website) Project Address (S.No./R.S.No./T.S.No./Door No.) Registration Applied for (Specify the Blocks) – clearly to be mentioned		

SI. No.	Particulars	Pag	ges
		From	To
19 20 21	Total Floor Area in sq.m. for which registration is required, Abstract for each category, i.e., Residential / LIG / Other than LIG /Commercial Registration Fee: i) Residential – upto 60 sq.m - Rs.10/- per sq.m ii) Residential – more than 60 sq.m - Rs.20/- per sq.m iii) Other category of buildings - Rs.25/- per sq.m iv) Commercial - Rs.50/- per sq.m v) Layout (for saleable area) - Rs.5/- per sq.m Calculation sheet of Registration Fee to be attached Registration fee remitted and mode of payment UTR No./Reference No. Brief detail of the projects launched in the past five years, whether already completed or being developed, as the case may be, including the current status of the said projects, any delay in its completion, details of cases pending, details of type of land and payments pending Site Project Current Case Payment Pending Status of the Status of the Status of Pending Pending		
	Project		
22	Plan of development works: a) Water Supply – Piped or Ground water b) Sewage Disposal – Sewage or STP c) Solid Waste Disposal (Garbage) d) Renewable Energy – Solar Energy e) Fire Fighting (for MSB) – As per NBC f) Emergency Evacuation Services (for MSB) – As per NBC		
23	Location details of the project, with clear demarcation of land dedicated for the project along with its boundaries including the Latitude and Longitude of the endpoints of the project (Google image with site location) Latitude		
24	Proforma of allotment letter, prescribed by the promoter, if any, Sale Agreement and Construction Agreement (Format available in TNRERA website)		
25	S.No. Details Contractor Detail /LS Engineer 1. Name 2. Firm Name 3. Registration details 4. Certified in PP application		
26	Details of facilities — Amenities/ Infrastructures / (Swimming Pool / Parks), etc., as given in the broucher. Each pages to be self attested by the promoter		
27	Stage of Construction and site photos		
28	Showcause Notice if issued if any and if so, copy of notice to be enclosed		
29	CD with all the above details in PDF format		

Registration Fee Details - Tamil Nadu

I. **Project Registration**

- 1. Layouts, sub-divisions and site approvals Rs.5/- per square meter of plottable area excluding EWS plots (Roads and OSR excluded);
- Residential buildings
 - i) Rs.10/- per square meter of FSI area for residential project in which dwelling unit size is less than 60 square meter;
 - ii) Rs.20/- per square meter of FSI area for other residential projects;
- Commercial buildings Rs.50/- per square meter of FSI area;
- Any other projects Rs.25/- per square meter of FSI area;

II. Project Extension

- > 10% of the original Project Registration fee if filed three months prior to the date of expiry of the registration granted.
- > Additional 10% of the project registration fee if not filed prior to three months.

III. Agent Registration

- Rs.25,000/- in case of the applicant being an individual.
- Rs.50,000/- in case of the applicant other than an individual.

IV. Changes after Registration of Project / Agent

> For any changes after registration certificate has been issued, a fee of Rs.2000 per transaction will be charged.

Bank Detail

A/C NO. 6543057988

NAME: TAMIL NADU REAL ESTATE REGULATORY AUTHORITY (TNRERA)

AC TYPE: CA (Current Account)

BANK: INDIAN BANK, CMDA Branch

IFSC CODE: IDIB000I010

Promoter to declare break-up details of Total Flat Area, UDS Land and Car Parking provision

	Carpet Area Statement						Date:					
SI.No.	Block	Floor	Flat No.	. Туре	RERA Carpet Area (sec 2(k)) (sq.m)	Exclusive Balcony (sq.m)	Exclusive Verandah/Utility/ Service/Open Terrace (sq.m)	Proportionate Common Area (sq.m)	Total Area (sq.m)	UDS land Area (sq.m)	Car Parking (Nos.)	
											Covered	Open
											-	
								-				
										-	-	i e
)=							5)		1		
	,									C POSSESSOR		
										TOTAL		

- •Where the Real Estate Project is to be developed in phases, every such phase shall be considered a standalone Real Estate Project, and the Promoter/Builder shall obtain registration under this Act for each phase separately.
- Registration is valid for a specified period as mentioned by the builder in application form.
- •Registration certificate will be issued within 30 days provided the application is in order.
- •Registration Certificate shall be given for individual blocks.
- •Renewal of registration of Real Estate Projects for a period as decided by the Authority without prejudice to the rights of the Buyers under any agreement, act and rules.

Post Registration with RERA

- •70% of the money collected from the allottees to be kept in a separate account (any Scheduled Bank) to cover the cost of the Project.
- ◆To be withdrawn in proportion to the percentage of completion of the Project.
- ◆Amount can be withdrawn after it is certified by an Architect, Engineer and Chartered Accountant in Practice
- ◆Promoter to furnish Quarterly Progress Report (QPR) of the registered Projects in the Format.
- ◆To furnish Annual Report on Statement of Accounts (Form-7) within 6 months after the end of every Financial Year duly certified by a Chartered Accountant
- ◆Information to Prospective Buyers
- ◆Following details are available in our website
- i. Profile of the Promoter
- ii. Background of the Promoter
- iii. Track record of the Promoter
- iv. Details of litigations if any on the land
- v. All approval details
- vi. Details of Architect, Engineer and other Consultants involved with the Project
- vii. Facilities and amenities proposed to be provided
- viii. Financial details of the Promoter
- ix. Quarterly Progress of the Project

Completion

- On completion of the Project
 - ◆To furnish Completion Report
 - ◆Building (Form-4)

◆Layout (Form-5)

- •Can withdraw the balance amount subject to acceptance of certificates in Form-4, Form-5 and Form-7 relating to Annual Report on Statement of Accounts by the Authority.
- •Above are the means provided in the Act & Rules for timely completion of the project and proper handing over to the consumers
- Inspite of above measures, if there are instances of non-compliance leading to dissatisfaction of the home buyers, the following recourses are available Complaints
- *Any aggrieved person may file a complaint with the Authority, under section 31 of the Act read with Rule 37 for any violation under the Act or the Rules and Regulations made thereunder, save as those provided to be adjudicated by the Adjudicating Officer, in Form-M of Rule 37 (1) which shall be accompanied by a fee of Rs.1,600/- remitted online along with supporting documents duly attested in all pages by registered post or in person in office. All documents should be indexed properly.
- •Any aggrieved person may file a complaint in the prescribed Form–N with the Adjudicating Officer for compensation under Section 12, 14, 18 and 19 of the Act read with the Rule 38 and Regulations made thereunder, save as those provided to be adjudicated by the Authority, which shall be accompanied by a fee of Rs.5,600/remitted online along with supporting documents duly attested in all pages by registered post or in person in office. All documents should be indexed properly.

Complaint – Disposal

- •On filing a complaint with the Authority, a copy of the complaint shall be served on the Promoter by the Complainant.
- ◆Three sets of complaints to be sent to the Authority apart from the complaint to be sent to the Promoter.
- •Will follow summary procedure for enquiry.
- •All final orders uploaded in website.

Failure of compliance of orders and direction of the RERA and Appellate Tribunal will make a promoter and Real Estate Agent liable for penalty including imprisonment imposed under section 59 to 66 of Real Estate (Regulation & Development) Act, 20 Offences and Penalties – Promoters

Section	OFFENCE	PENALTY (MAXIMUM)	IMPRISONMENT	
59 (1)	If the project is not registered under Section 3	10% of the estimated cost of real estate project	(4)	
59 (2)	If promoter does not comply with orders/decisions/directions issued and continues to violate Section3	Further 10% of the estimated cost of real estate project	May extend to a period of 3 years or both	
60	If promoter provides false information or contravenes provision of Section4	5% of the estimated cost of real estate project		
61	General Penalty–For other than contraventions pertaining to Sec3 & 4	5% of the estimated cost of real estate project	-	
Section	OFFENCE	PENALTY (MAXIMUM)	IMPRISONMENT	
63	If promoter fails to comply with the orders of RERA	Every day of default which may extend to 5% of the estimated cost of real estate project	2	
69	Offences by Companies	Every person, who at the time, the offence was committed was in charge of, or was responsible to the company for conduct of, business of company, as well as company, shall be deemed to be guilty of offence and shall be liable to be proceeded against and punished accordingly. Proviso is in place to safeguard the innocent officers or officers who have exercised due-diligence to prevent the commission of such offence.		

- ◆Every order passed by the Authority / Adjudicating officer shall be enforced in the same manner as it were a decree or order made by the civil court in a suit. Benefits of the Act
- ◆The beneficial consequences are not only for the home buyers but also for the Promoters.
- ◆By this Act, the Promoter has a clear frame work of what is expected from him and the consequences in case of non-compliance.
- •Act not only provides for the rights of the home buyers but also clearly indicates the duties of the allottees.
- ◆Home buyer, shall be responsible to make necessary payments in the manner and within the time as specified in the said agreement.
- ◆Home buyer shall pay interest, at such rate as may be prescribed, for any delay in payment towards any amount or charges to be paid.
- •Every home buyer of the apartment, plot or building as the case may be, shall participate towards the formation of an association.
- •For non-compliance of the orders of the Authority Offences and Penalty - Home Buyer

Section	OFFENCE	PENALTY (MAXIMUM)	IMPRISONMENT		
67	If any allottee fails to comply with orders of the Authority	5% of Plot/ Apartment/ Building Cost			
Section	OFFENCE	PENALTY (MAXIMUM)	IMPRISONMENT		
67	If any allottee fails to comply with orders of the Authority	5% of Plot/ Apartment/ Building Cost			
68	If any allottee fails to comply with orders of the Appellate Tribunal	Punishable with imprisonment for a term which may extend upto one year or fine for everyday which may cumulatively extend upto 10% of Plot/ Apartment/ Building Cost			

TAMIL NADU REAL ESTATE APPELLATE TRIBUNAL (TNREAT)

- Established Appellate Tribunal to hear Appeals from the decisions or orders of the Real Estate Regulatory Authority and the Adjudicating Officer.
- ◆Comprises of Chairperson and Two Members.
- ◆Has its Jurisdiction over Tamil Nadu, Union Territory of Andaman & Nicobar Islands and Puducherry.

Real Estate Agent

- •Every Real Estate Agent have to Register with the Authority on payment of Registration fees.
- •Rs.25,000/- for individual & Rs.50,000/- other than individual.
- ◆Registration for Real Estate Agent issued in orm 'H' is valid for 5 years.

Offences and Penalty - Real Estate Agent

Section	OFFENCE	PENALTY (MAXIMUM)	IMPRISONMENT
62	If any real estate agent fails to comply with or contravenes the provisions of section 9 or section 10.	Shall be liable to a penalty of ten thousand rupees for every day during which such default continues, which may cumulatively extend up to five per cent. of the cost of plot, apartment or buildings.	1 . 7. 7. 1
65	If any real estate agent, who fails to comply with, or contravenes any of the orders or directions of the Authority.	Shall be liable to a penalty for every day during which such default continues, which may cumulatively extend up to five per cent., of the estimated cost of plot, apartment or building	-

Government have issued the following Orders/Circulars G.O.(Ms).No.166, H&UD Department, dated 29.11.2018

- a) CMDA & DTCP to include TNRERA Registration is one of the conditions in the Planning Permission.
- b) Proof of TNRERA Registration to be produced for issue of Completion Certificate.
- ii) Letter No. 6275/J1/2020-1, dated 05.09.2020 from Commercial Taxes & Religious Department.
- ◆To insist proof of RERA Registration while registering Plot by the Registration Department.

For the benefit of the home buyers, Promoters & Real Estate Agents, the following are hosted in our website

- *Acts, Rules, Regulations, Circulars, Forms and other related links.
- ◆Registered Projects, Real Estate Agents
- Judgements
- Checklist for Registration
- ◆For the Real Estate Sector as a whole, regulated development of Real Estate is a win-win for both the home buyers and Promoters.

அழகைப் பற்றி கனவு காணாதீர்கள், அது உங்கள் கடமையை பாழாக்கி விடும். கடமையை பற்றி கனவு காணுங்கள் அது உங்கள் வாழ்க்கையை அழகாக்கும். –அப்துல் கலாம்





Rules – Tamil Nadu Regularisation of Unapproved Layouts and Plots Rule 2017-under section 113 read with section 122 of the Tamil Nadu Town ar Country Planning Act, 1971 – Amendment to Rules – Notification – Issued.

Housing and Urban Development [UD4(1)] Department

G.O.(Ms).No.40

Dated: 26.02.2021 சார்வரி வருடம், மாசி 14, திருவள்ளுவர் ஆண்டு 2052

Read:

- 1. G.O.(Ms).No.78, Housing and Urban Development Department, dated 04.05.2017.
- 2. G.O.(Ms).No.172, Housing and Urban Development Department, dated 13.10.2017.
- 3. G.O.(Ms).No.55, Housing and Urban Development Department, dated 02.05.2018.
- 4. G.O.(Ms).No.21, Housing and Urban Development Department, dated 05.02.2019.
- 5. G.O.(Ms).No.16, Housing and Urban Development Department, dated 25.01.2021.
- 6. From Director of Town and Country Planning Letter No.Roc.No.7671/2020-T, dated 27.01.2021.

ORDER:

The appended Notification will be published in the <u>Tamil Nadu</u> <u>Government Gazette</u>, Extraordinary, dated the 26th February 2021.

(BY ORDER OF THE GOVERNOR)

D. KARTHIKEYAN
PRINCIPAL SECRETARY TO GOVERNMENT

APPENDIX. NOTIFICATION.

In exercise of the powers conferred by section 113 read with section 122 of the Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972), the Governor of Tamil Nadu hereby makes the following amendments to the Tamil Nadu Regularisation of Unapproved Layouts and Plots Rules, 2017, namely:-

AMENDMENTS.

In the said Rules,-

- In rule 24, Explanation-I shall be omitted; and (1)
- (2)after rule 24, the following rule shall be added, namely:-"25. Notwithstanding anything contained in these rules, in respect of cases not covered under rule 24, any individual plot owner or layout promoter eligible to file an application for regularization under rule 3, may apply for regularization of the unapproved plot or layout on-line in Form-I to the Competent Authority, on or before the 28th February 2021. If any such application is received, the procedure laid down under rule 24 shall be followed."

D. KARTHIKEYAN PRINCIPAL SECRETARY TO GOVERNMENT

// Forwarded by Order //

Section Officer

P.R.No.194 Date:18.03.2021

PRESS RELEASE

Guidelines have been issued vide G.O.Ms.No.76, Housing and Urban Development department dated: 14.6.2018 for grant of concurrence for educational institutional buildings constructed and functioning before 1.1.2011 in non-plan areas. The stay order issued by the Madras High Court, Chennai which prevented grant of concurrence for the applications received online during the period of 3 months from 14.6.2018 to 13.09.2018, has been vacated by the court in its order dated: 10.02.2021 in Writ Appeals no.233/2019 etc. As per this order of the court those who have already applied under the scheme may approach the concerned District Town and Country Planning office to obtain concurrence by submitting relevant details. In the said order, the court has also given two weeks time to register applications under the scheme as another opportunity to those who have missed submission of applications earlier opportunity. The Election Commission of India has offered no objection from the Model Code of Conduct angle to receive fresh applications online under the scheme and to issue a press release regarding this matter. Further, it is also informed that those who are interested to obtain concurrence under this scheme may register application in two weeks' time from 22.3.2021 to 4.4.2021 in the website: www.tn.gov.in/tcp. It is requested to utilize this one time rare opportunity.

Released by:
Director,
Town and Country Planning department,
E&C Market Road,
CMDA Complex, 3rd Floor,
Koyambedu, Chennai – 600 107.

Director of Town and Country Planning

Issued By: - DIPR, Secretariat, Chennai - 9.



வணக்கம்

அகில இந்திய கட்டுநர் சங்கத்தின் 2020-2021ம் ஆண்டின் தலைவராக பொறுப்பு வகித்து வந்த பதவி காலம் மார்ச் மாதம் 31ந் தேதி முடிவடைந்தது.

கடந்த ஓராண்டு காலத்தில் தலைவராக நான் என்னுடைய மனசாட்சியின்படியும், விருப்பு வெறுப்பு இன்றி முழு மனதாக கட்டுநர் சங்க நலனுக்காக பணியாற்றியுள்ளேன். கொரோனா கால கட்டத்தில் கட்டுநர்களின் இடர்களை களைய வேண்டி கோரிக்கைகளை அரசிடம் தெரிவித்து தேவையான நிவாரணங்களை பெற்றிருக்கிறோம். என்னுடன் இணைந்து பணியாற்றிய அனைத்து அகில இந்திய துணைத்தலைவர்கள், மாநிலத்தலைவர்கள், மய்யத்தலைவர்கள், MC/GC உறுப்பினர்கள் அனைவருக்கும் என்னுடைய மனமார்ந்த நன்றியைத் தெரிவித்துக் கொள்கிறேன்.

- ▶ அனைத்து அரசு ஒப்பந்தங்களுக்கும் பணி நிறைவு காலத்தினை 6 மாத காலத்திற்கு நீட்டிப்பு செய்யவும், ஒரு வேளை ஒப்பந்தப்படி பணி முடிவு செய்ய இயலாது என்ற நிலை இருந்தால் அந்த ஒப்பந்தத்தினை முன்கூட்டியே முடித்துக் கொள்ளவும் வழிவகை செய்யப்பட்டது.
- ▶ அனைத்து ஒப்பந்ததாரர்களுக்கும் கடன் மீதான வட்டியினை 6 மாதங்களுக்கு தள்ளுபடி செய்து ரிசர்வ் வங்கியினால் அறிவிப்பு செய்ய நடவடிக்கை மேற்கொள்ளப்பட்டது.
- ▶ கூடுதல் பிணையம் ஏதுமின்றி 20 சதவிகிதம் கூடுதல் கடன் வழங்க அனைத்து வங்கிகளுக்கும் ரிசர்வ் வங்கி அறிவுறுத்த நடவடிக்கை மேற்கொள்ளப்பட்டது.
- ▶ Retention money யினை உடனடியாக திருப்பி வழங்கவும், Retention விகிதாச்சாரத்தை குறைக்கவும் நடவடிக்கை மேற்கொள்ளப்பட்டது.
- ⊯பாதுகாப்பு வைப்புத் தொகையினை(SD) உடனடியாக வழங்கவும் வைப்புத்தொகையினை குறைக்கவும் நடவடிக்கை மேற்கொள்ளப்பட்டது.
- ▶ Performance Guarantee –யினை உடனடியாக குறைக்க நடவடிக்கை மேற் கொள்ளப்பட்டது.
- ▶ தொழிலாளர் வருங்கால ஈட்டுறுதி திட்டத்திற்கான கொடையினை

செலுத்துவதற்கு கால நீட்டிப்பு வழங்க நடவடிக்கை மேற்கொள்ளப்பட்டது.

▶ நூற்றுக்கும் மேற்பட்ட காணொலி மூலமாக நடத்தப்பட்ட கூட்டங்களில் கலந்து கொண்டேன்.

⊯புது டில்லியில் கார்ப்பரேட் அலுவலகம் துவங்க நடவடிக்கைகள் மேற்கொள்ளப்பட்டது

கடந்த 12.02.2021 அன்று சிமெண்ட் மற்றம் கம்பி விலை உயர்வை கண்டித்து ஒரு நாள் வேலை நிறுத்தம் மற்றும் ஆர்ப்பாட்டம் இந்தியா முழுவதும் கட்டுநர் சங்க சரித்திரத்தில் முதல் முறையாக அனைத்து மய்யங்கள் மற்றும் கட்டுமானத்துறையை சார்ந்த இதர அமைப்புகளையும் இணைத்து எழுச்சியுடன் நடத்தப்பட்டது. இந்நிகழ்வு நமது சங்கத்தின் ஒற்றுமையையும், வலிமையையும் பறைசலாற்றுகிறது. இந்த ஆண்டின் அகில இந்திய கட்டுநர் சங்க தலைமை கழக நிர்வாகிகள் போட்டியின்றி ஒரு மனதாக தேர்ந்தெடுக்கப்பட்டது மன நிறைவைத் தருகிறது.

தென்னக மய்யத்தில் 2009-2010ல் மய்யத் தலைரவாகவும், 2012-13ல் தமிழ்நாடு மாநில தலைவராகவும், 2016-17ல் தென் பிராந்திய துணைத்தலைவராக தற்போது 2020-21ல் அகில இந்தியத் தலைவராக பணியாற்றிய என் மீது அன்பு செலுத்தி ஆதரவு அளித்த தென்னக மய்யத்திற்கு என் சிரம் தாழ்த்தி இரு கரம் கூப்பி நன்றியைத் தெரிவித்துக் கொள்கிறேன்.

முன்னாள் அகில இந்தியத் தலைவர் பீஷ்மர் R. ராதாகிருட்டிணன் அவர்களின் வழிகாட்டுதலுக்கும் அனைத்து மூத்த முன்னோடிகளின் ஒத்துழைப்பிற்கும் என் உளம் கனிந்த நன்றியைத் தெரிவித்துக் கொள்கிறேன்.

இறுதி மூச்சு வரை என் பணி தொடரும்.

என்றும் அன்புடன் மு. மோகன்

50 வயதில் ஆட்டத்தைத் தொடங்குங்கள்

இப்போதெல்லாம் 50 வயதைத் தொட்டவுடன் உடலளவிலும் மனதளவிலும் இனி தன்னால் பெரிதாக ஒன்றும் செய்ய முடியாது என்று நம்மில் பலர் முடிவு செய்து கொள்கிறார்கள். இது தவறு. 50 வயதுக்குப் பிறகு தான் ஒரு பலமான வளமான மூளையோடு நாம் பயணிக்க ஆரம்பிக்கிறோம். அனுபவப்பட்டு தெளிந்து விஷயங்களில் வாழ்க்கையை புரிதலோடு பார்க்கிற பருவம் இந்த இரண்டாவது இன்னிங்ஸ்தான். வாழ்க்கையில் 50 ல் ஓரளவு உந்து சக்தி குறைந்து போகும். இனி என்ன என்ற சோம்பேறி சாய்தளம் நம்மை ஆள அதனால் பல நோய்களும் நம்மை சூழ முற்படும். 50 வயதுக்கு மேல் தவறாமல் செய்ய வேண்டிய அவசியமான விஷயங்கள்

№ புதிய உந்து சக்தியை உருவாக்க புதிதான உங்களுக்கும் தேவையான சவால் ஒன்றை கையிலெடுங்கள்...

🕪 உங்களை சுறுசுறுப்பாக வைத்துக் கொள்ள கடினமான இலக்கை முன்னிலைப்படுத்தி அதனை நோக்கி நிதானமாக ஆனால் உறுதியோடு செல்லுங்கள்.

₩ எப்போதுமே புதிய விஷயங்களைத் தேடுங்கள். புதிய மனிதர்களிடம் பேசுங்கள்

№ இளைஞர்களோடு பழகுங்கள். *25* வயதில் இருந்த உத்வேகம் அவர்களிடமிருந்து உங்கள் மீளக் கிடைக்கும்.

₩ அழகான உடைகளை ரசனையுடன் தேர்வு செய்து மிடுக்காக உடுத்துங்கள். 50 வயதில் நரையும், திரையும் வழுக்கையும் அழகுதான்.

உலகின் மிகப் பெரிய சாதனைகளைச் செய்தவர்கள் நிறையபேரை ஈர்க்கின்றவர்களில் 50+காரர்கள்தான் அதிகம்.

பெரும்பாலான இளைஞர்களுடன் ஒத்த கருத்து நண்பர்களுடன் புதிய இடங்களுக்கு புதிய அனுபவங்களைத் தேடி பயணம் செல்லுங்கள்.

வேறுபட்ட மனிதரோடு உரையாடுங்கள். திசையறியா ஆர்வமூட்டும் பயணங்கள் நம்மை பள்ளிப் பருவத்திற்கு இட்டுச் சென்று துள்ளி குதிக்க வைக்கும்.

🕪 புதிய நவீன சிந்தனையாளர்களின் புத்தகங்களைத் தேடி நிறைய படியுங்கள். உங்கள் மூளைக்கு தீனி போட நிறைய நிறைய புதிய விஷயங்களை தேடிப் படியுங்கள்.

நிகழ்வுகளை நகைச்சுவைக் கதைகளை ஒளிமங்களை விரும்பி காணுங்கள்.

▶ சிரித்து பேசுங்கள் பிறர் சிரிக்கப் பேசுங்கள். உங்களைச் சுற்றி ஒரு ஒளி வட்டம் நிலையாகும். ⊯விரோதிகளை விலக்குங்கள். பெருமைக்காரர்களை பொறாமைக்காரர்களை விரயம் கால கருதி ஒதுக்குங்கள்.

மன ஆரோக்கியம் உடல் ஆரோக்கியம் பேணுங்கள். நடைபயிற்சி, மூச்சு பயிற்சி சிறு சிறு ஆசனங்கள் தவறாது செய்யுங்கள்

வாரம் ஒருமுறையாவது உங்கள் இணை சிரித்<u>த</u>ு மனதினருடன் மகிழ்ந்து உண்டு உறவாடுங்கள்.

▶ மறந்தும் சாய்வு நாற்காலிவாசிகள் பக்கம் ஒதுங்கி விடாதீர்கள்.உங்களை அவர்கள் பக்கத்திலேயே படுக்க வைத்து விடுவார்கள்.

▶ பொதுச்சேவையில் நாட்டம் கொள்ளுங்கள். ஏரி குளம் தூய்மை சுற்றுச் சூழல், பசுமை, சமூக நேர்மை காத்தலில் ஆர்வம் கொள்ளுங்கள்.

▶) மகன் மகள் மற்றும் குறிப்பாக மருமகளைத் திட்டாதீர்கள்.

₩ முதலில் நம்மைச்சார்ந்தவர்களுக்கு, பின்னர் அடுத்தவர்களுக்கு உதவி தேவைப்படுபவர்களுக்கு உங்களால் இயன்றவகையில் உதவுங்கள். அவர்கள் உங்களை நீங்களே புதிதாக ரசித்து நன்றியில் மகிழ்வீர்கள்.

எப்போதுமே முதல் இன்னிங்சை விட இரண்டாம் இன்னிங்ஸ் தான் நாம் வாழ்ந்த வாழ்வின் அர்த்தங்களை நிர்ணயிப்பதில் பெரும் பங்கு வகிக்கிறது.

மேற்சொன்ன விஷயங்களை சரியாகச் செய்தால் 50+ ஆரோக்கியம் பற்றி கவலைப்படத் தேவையே இல்லை தோழர்களே மூளையும், மனசும், உடலும் சரியாக இயங்க ஏற்பாடு செய்து விட்ட பிறகு ஆரோக்கியத்தில் என்ன பிரச்சனை வந்துவிடப்போகிறது.

> இது உங்களுக்கான ஆட்டம் ஆரம்பம் இப்போதே துவங்குங்கள்

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SOUTHERN CENTRE ACTIVITIES

11.03.2021

அன்று மூன்றாவது முதன்மைத் திட்டத்திற்கான முன் ஆய்வுப் பணிக்கு M/s. Deloitte Touche Tohmatsu India LLP, சென்னை அவர்களை நியமனம் செய்த பெருநகர வளர்ச்சிக் குழுமம் அவர்களுடைய ஆலோசகர்களுடன் விவாதித்து அகில இந்திய கட்டுநர் சங்க தென்னக மய்யத்தின் பரிந்துரைகளை செய்யுமாறு கேட்டுக் கொண்டது. அதனடிப்படையில் M/s. Deloitte Touche Tohmatsu India LLP, நிறுவனத்தாரின் ஆலோசகர்களுடன் தென்னக மய்யத்தலைவர் திரு. L. சாந்தகுமார் தலைமையிலான நிர்வாகக் குழுவினர் ஆலோசித்து நமது பரிந்துரைகளை சமர்ப்பித்து இவற்றை மூன்றாவது முதன்மைத் திட்டத்தில் சேர்க்க வேண்டும் என கோரிக்கை வைத்ததோடு மூன்றாவது முதன்மைத் திட்டத்தை வகுக்கும் குழுவின் தென்னக மய்யத்தினையும் இணைக்கக் கோரினர்.

16.03.2021

அன்று காலை 10 மணி அளவில் தென்னக மய்ய டாக்டா் A. ராமகிருஷ்ணா அரங்கில் RERA குறித்த விழிப்புணர்வு கலந்தாய்வுக்கூட்டம் நடைபெற்றது. அகில இந்தியத் தலைவர் திரு. Mu. மோகன் அவர்கள் தலைமை விருந்தினராக கலந்து கொண்டு சிறப்பித்த இக்கலந்துரையாடல் கூட்டத்தில் அகில இந்திய முன்னாள் தலைவா் திரு. R. இராதாகிருட்டிணன் அவர்கள் மய்யத்தலைவர் திரு. L. சாந்தகுமார் அவர்கள் மற்றும் அனைத்து மய்ய நிர்வாகிகளும், முன்னோடிகளும், செயற்குமு மற்றும் பொதுக்குழு உறுப்பினா்களும் பங்கேற்றனா். ஸிணிஸிகிவின் கூடுதல் இயக்குநா் திரு. S. செல்வகுமாா் அவாகள் சிறப்பு விருந்தினராக உரையாற்றி உறுப்பினாகளின் வினாக்களுக்கு தெளிவுரை இக்கலந்துரையாடலில் 90க்கும் அதிகமான உறுப்பினர்கள் கலந்து வழங்கினார். கொண்டு பயனடைந்தனர்.

26.03.2021

அன்று பதினொன்றாவது செயற்குழு மற்றும் பொதுக்குழு கூட்டம் The Crowne Plaza, சென்னை 18ல் மய்யத்தலைவர் திரு. L. சாந்தகுமார், துணைத்தலைவர் திரு. R.R. ஸ்ரீதர், செயலாளர் திரு. A.N. பாலாஜி, பொருளாளர் திரு. N.G. லோகநாதன், இணை செயலாளர் திரு. R. நிம்ரோட், உடனடி முன்னாள் மய்யத்தலைவர் திரு. S. இராமப்பிரபு ஆகியோரின் உபசரிப்பில் நடைபெற்றது.





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