

THEME DOCUMENT

SYMPOSIUM ON STATUTORY SUPERVISION FOR PRIVATE CONSTRUCTIONS

Sponsored By:
MUNICIPAL CORPORATION OF GREATER BOMBAY

Organised By:
INSTITUTION OF ENGINEERS (INDIA)
MAHARASHTRA STATE CENTRE

and
PRACTISING ENGINEERS, ARCHITECTS AND
TOWN PLANNERS ASSOCIATION
BOMBAY



5th OCTOBER 1991

AT

AMAR GIAN GROVER AUDITORIUM
LALA LAJPATRAI COLLEGE, HAJI ALI,
BOMBAY-400 034.

ACTIVE SUPPORT FROM :

1. Indian Institute of Architects, Brihan Mumbai Centre.
2. Indian Institute of Interior Designers.
3. Indian Concrete Institute.
4. Maharashtra India Chapter of American Concrete Institute.
5. Association of Consulting Engineers India.
6. Institution of Standard Engineers
7. Builders Association of India Bombay Centre.
8. Maharashtra Chamber of Housing Industry.

ORGANISING COMMITTEE :

President

Shri K. Padmanabhaiah, IAS
Municipal Commissioner, Bombay.

Chairman :

Shri P.M. Kale,
Director, (Engineering Services & Projects).
Municipal Corporation of Greater Bombay.

Convenors :

Shri M.K. Gadgil
Shri Satish C. Dhupelia

Members :

- | | |
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| 1. Shri R.S. Ajmera | 15 Shri A.R. Jambekar |
| 2. Shri L.D. Babladi | 16. Shri P.Y. Janve |
| 3. Shri N.A. Badheka | 17. Shri A.N. Kale |
| 4. Shri Ram Bedekar | 18. Shri Babubhai Majithia |
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| 7. Shri Gurunath V. Dalvi | 21. Shri Vijay V. Phulkar |
| 8. Shri M.G. Deobhakta | 22. Shri G.L. Raheja |
| 9. Shri Atul C. Desai | 23. Shri S.A. Reddi |
| 10. Shri N.B. Dharmadhikari | 24. Shri Nayan Shah |
| 11. Shri Sudhakar M. Dokhane | 25. Shri Guha Thakurta |
| 12. Shri N.B. Hadkar | 26. Shri B.S. Upasham |
| 13. Shri N.H. Hiranandani | 27. Shri M.G. Vartak |
| 14. Shri S.R. Hosalkar | 28. Shri P.D. Wani |

SESSION I

Team for preparation of theme papers

Registration	:	Shri L.D. Babladi - Convenor
Regulation &	:	Shri M.G. Vartak - Co-convenor
Procedure	:	Shri S.R. Hosalkar
	:	Shri Mohan Deshmukh
	:	Shri N.B. Hadkar
	:	Shri Nayan Shah

SESSION II

Duties	:	Shri B.S. Upasham - Convenor
	:	Shri N.H. Hiranandani - Co-convenor
Powers	:	Shri N.A. Badheka
	:	Shri Ram Bedekar
Responsibilities	:	Shri G.L. Raheja
	:	Shri M.K. Gadgil
	:	Shri Mahimtura R.H.
	:	Shri R.M.Chokshi
	:	Shri N.B. Dharamadhikari

SESSION III

Formats	:	Shri A.N. Kale - Chairman
Testing	:	Shri Satish C. Dhupelia - Convenor
Maintainance of Records	:	Shri S.A.Reddi
Checklist	:	Shri L.V. Prabhu
Progress Chart	:	Shri R.L. Nene
Size of works	:	Shri Nayan Shah
	:	Shri A. R. Jambekar
	:	Shri Shashi Prabhu
	:	Shri N.B. Hadkar

SESSION IV

Facilitate continuous training	:	Shri S.R. Hosalkar - Convenor
	:	Shri D.J. Vyas - Co-convenor
Programme &	:	Shri S.R. Wadekar
Ensuring availability	:	Shri Narendra Patel
of trained	:	Shri Guha Thakurta
Supervisors	:	Shri G.L. Raheja
	:	Shri P.Y. Janve
	:	Shri M. K. Gadgil

General

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Mobilisation	:	Shri Atul C. Desai - Co-Convenor
	:	Shri G.L. Raheja
	:	Shri Rajani Ajmera
	:	Shri S.K. Choudhury
	:	Shri N. H. Hiranandani
	:	Shri N. D. Patel
Delegat	:	Shri B. S. Upasham - Convenor
Mobilisation	:	Shri Sudhakar Dokhane - Co-Convenor
	:	Shri V. V. Phulkar
	:	Shri Ram Bedekar
	:	Shri S.R. Hosalkar
Secretaries	:	Shri B. V. Thalte
	:	Shri K. Ravi Nambiar

PREAMBLE

Entire gamut of Building constructions and development hitherto has been based on different social and economical context particularly in urban Areas. Majority of Buildings either residential, commercial or industrial were put up and considered as permanent investment and the owner being final occupant and person responsible for maintainance was naturally interested in adequate quality in the proposed constructions. Due to this standard practice evolved envisage the constructions being done through contractors and Architects, acting with necessary overall controls, through acceptance supervision and certifications of payment to contractors. For day to day supervision clerk of works having adequate qualifications and experience was appointed under architect's controls paid separately by owner, to continuously supervise the work of and to control erstwhile reputed contracting agency which invariably used to be there.

During last quarter of century particularly after 2nd World War, the inflationary trend has set in. Rate of interest in fixed deposits either with banks or with corporate bodies have increased in leaps and bounds. Commensurate increase in interest is not evident in properties and real estate as permanent investment, which has lead to emergence of section of society interested in speculative profits specially in Urban Areas, where demand outstrip supply due to various causes. Investment is restricted to minimum bare necessary requirement of residential accommodation due to spiral of increasing cost.

Rapid urbanisation and industrialisation coupled with heavy demands has lead to slow & steady but definite deterioration in the quality of building materials supplied in market. Building material market most of the time remains sellers market and deterioration in quality of supplied materials has contributed substantially towards deterioration in quality of construction. Gradations Certifications, and warranty of input supplied for construction has assumed from of essential requirement, which has not been given, any attention by powers and authorities that be to an extent warranted. Site checking and testing with sampling has its limitations. Many times nightmarish situation arise due to such defective material supply especially in case of cement and steel.

Technical personnel cannot in spite of their best efforts, be expected to check minutely which is also not envisaged even during manufacturing process. Deterrent punishment or policing may have temporary effect but is not a permanent solution. such consideration cannot form the part of policy.

Building design & Construction is a multidisciplinary function. The function from one agency might be shifted to other agencies but abandonment of any function of any agency is fraught with hazardous consequences. Any one doing so may do it at his own peril but not at the peril of public safety. This being the underlying idea the reader is requested to peruse this document keeping above in view. As far as possible present practice is supplemented by additional input keeping the main base of practice as it is. The professional charges, mode of payment and employment of partial services form the part of conditions of engagement of the professional which may be followed as per existing practice for the time being in force.

MUNICIPAL CORPORATION OF GREATER BOMBAY

No. CHE / 864 / DPBP of 7.5.1991

CHE/5(BP 1)

91-92

CIRCULAR

Sub : Appointment of site supervisors on the construction of private buildings.

In order to ensure reasonably good quality of work in case of private buildings within the limits of Greater Bombay, it has been decided to insist upon appointment of qualified site supervisors through their Architects / Structural Engineers. The Standing Committee by their resolution No. 890 dated 25-10-89 have accorded sanction under the provisions of 356 of the B.M.C. Act for the insisting upon appointment of site supervisors in case of construction of private bldgs. For this purpose, the guidelines and qualifications of the site supervisors as approved by the Standing Committee are as per the accompanying Annexure.

The persons qualifying for the work of the site supervisor as per the guidelines prescribed above, will have to get registered with the Municipal Corporation in the various categories mentioned in the guidelines. The registration of site supervisors will be done by the Executive Engineer, Building proposal (City), whose office is situated on the 3rd floor, Municipal E-ward Office, 10 Shaikh Hafizuddin Marg Byculla, Bombay 400 008 during office hours on all working days. The fees for registration of site supervisors shall be Rs. 200/- per year for Grade, Rs. 150/- per year for II Grade and Rs. 100/- per year for III grade the qualification of the applicant and shall accompanied by two certified xerox copies of the supporting certificates in respect of the qualifications and the work experience.

The registration of the site supervisors will be done from 13th, May, 1991. The appointment of the suitably qualified site supervisors for proper supervision of all private constructions shall be insisted upon from 10th August 1991 by incorporating a suitable condition in the I.O.D. / Permission letter to appoint the registered qualified site supervisors by the owner / developer through their architects/ structural Engineers before issue of Commencement Certificate.

In the case of works in progress with the valid C.C. the above mentioned condition about the appointment of suitably qualified Site Supervisors for proper supervision shall be insisted upon from 10th October 1991.

The request for grant of Occupation Permission / Building Completion Certificate shall be entertained only if the work is supervised by suitably qualified site supervisor duly registered with the Municipal Corporation.

Acc : Annexure.

sd/ - 7.6

CH. E. D. P.

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DTP. (E. S. & P.)

ANNEXURE

GUIDELINES / REGULATIONS FOR SITE SUPERVISORS

Constant supervision during the progress of building work by registered /licenced construction supervisor of appropriate category shall be compulsory on all construction works of buildings.

Proper arrangement for constant supervision shall be made for the following classification of work.

- A. **Minor Works** : means works upto the value of Rs. 4,00,000/- or 150 sq. mts. of development with any individual span storey height not exceeding 3.6 mts. for flat roof / structure and individual span not exceeding 8.0 mts. and storey height upto 4.8 mts. upto the level for sheeted roofs, the overall height of structure being upto 10 mts.
- B. **Small Works** : means works upto value of Rs. 7,50,000/- or development of area upto 300 sq. mts. with above mentioned parameter of spans and for flat and sheeted roof / floor overall height of structure being upto 12.5 mts.
- C. **Medium Works**: means works upto value of Rs. 30,00,000/- or development of area upto 1500 sq. mts. for individual span not exceeding 9 mts. and upto 5 stories i.e. (Ground /Stilts + stories) in case of flat / slab or 20 mts. span and storey upto 8 mts. for sheeted roof excluding development for commercial, educational or public assembly occupancy not confined to ground floor, height of structure being upto 12.5 mts.
- D. **Major Works** : All works not covered above.

- (1) Individual building.
(2) Multiple building on one project site.

Supervision for above work can be undertaken by following catagories of persons subject to the restriction given as under :

- (1) Licenced surveyor.
(2) Architect
(3) Consulting Structural Engineer
(4) Structural Designer
(5) Site Supervisor Grades I, II, III.

Licensed Surveyor /Architect / Consulting Structural Engineer / Structural Designer.

On specific appointment from DEVELOPER AND prior acceptance by licénsed Surveyor / Architect /Consulting Structural Engineer / Structural Designer can undertake site supervision upto 5 works at any one time along with his primary design functions subject to aggregate maximum of ³⁰⁰⁰~~300~~ sq. mts. of development and further subject to his submitting certificate of constant supervision restricted to only those works where he is connected with his primary design function.

Site supervisor Grade III can undertake site supervision of maximum 5 MINOR WORKS at a time within any on Ward, having aggregate area of development upto 1000 sq. mts.

Site supervisor Grade II can undertake site supervision of maximum 5 MINOR OR SMALL WORKS at a time within any one ward having aggregate maximum area upto 1500 sq. mts.

Site supervisor Grade I can undertake site supervision of upto 5 MEDIUM WORKS within any one ward having aggregate maximum area upto 3000 sq. mts. or any single major work without restriction of size or value.

Provided that in case of projects involving development of multiple buildings under one developer and architect in a single layout of continuous building sites the above specific requirements shall be deemed to have been met with provided suitable arrangements as to effective supervision or construction is made by providing licenced supervisory staff under him i.e. the site supervisor Grade I staff shall be intimated to architect and Corporation. When Grade II Supervisor work under overall control as above the restriction of type, area and value of work shall not apply.

QUALIFICATIONS

Site Supervisor Grade I : B.E. (Civil) or B. Arch. or any other equivalent recognised qualifications with minimum 5 years experience after graduation, on execution of building.

Diploma or Licentiate in Civil Engg. with minimum 7 years experience in construction or construction supervision.

Site Supervision Grade II : B.E. (Civil) or B. Arch. or any other equivalent recognised qualifications with minimum 3 years

OR

Diploma or Licentiate in Civil Engineering with 4 years experience.

OR

Persons who has worked as supervisor and has minimum 10 years of experience who in the opinion of the architect is capable of performing the duties given to him irrespective of his qualifications.

Site Supervisor Grade III : B.E. (Civil) or B. Arch. or any other equivalent recognised qualifications.

OR

Diploma in Civil Engineering with 1 year's experience.

Person who in the opinion of architect is capable of discharging his duties with practical experience of 5 years irrespective of his qualifications.

WORK TO BE DONE BY SITE SUPERVISOR

Site supervisor is a technical representative of the architect, whose duties specifically include the following functions :

- (a) Inspection and approval of all the material brought on site for construction.
- (b) Day to day complete supervision and control over the workmanship of different contractors and agencies connected with building construction.
- (c) On site-co-ordination between architect, consultants, and contractors.
- (d) To arrange and get all test certificate for materials and work as are necessary for the work and as instructed by architect and other consultants.
- (e) Performing such other functions as may be directed by the architect and other consultants to ensure quality of the work and fulfilment of Architect's and other consultant's assignment.
- (f) Submitting supervision memo along with commencement notice and issuing completion certificate.

FORMAT OF APPLICATION

FOR REGISTRATION/UP-GRADATION OF SITE SUPERVISOR *

To,

The Executive Engineer, Building proposal (City),
3rd floor, Municipal E-ward Office,
10 Shaikh Hafizuddin Marg, Byculla, Bombay 400 008

1. Full Name and Surname : _____
(in Block Letters)

2. Full Postal Address : _____
(in Block Letters)

_____ Pin Code _____

Tel. No. _____

3. Educational Qualifications :

(a) as on the day he was first
Registered as site supervisor _____

(b) as on the date of application _____

(c) Training program attended
(if any) _____

4. Date of Birth _____

a) Age _____

5. Particulars of Experience :

S.No.	From	To	* Employer	Designation	Nature of Project	Nature of Work Responsibility
-------	------	----	------------	-------------	-------------------	----------------------------------

* State if self employed.

6. Documents to be enclosed (True / Xerox copies only.)

a) Proof of Experience.

b) Proof about date of birth (School leaving certificate / certificate issued by
the Register of Birth and Death).

- c) Proof of educational qualification and/or training
- d) Two recent passport sized photographs.

7. If application is for up gradation:

- A) Present registration No. _____ Grade _____
- B) Grade applied for _____
- C) Training :

I hereby declare that the particulars and information given above are true and correct. I agree that false / incorrect information disqualifies me from being considered for Registration.

Date :

Place :

Signature :

BRIHAN MUMBAI MAHANAGAR PALIKA

SITE SUPERVISOR'S REGISTRATION

PASSPORT SIZE
PHOTOGRAPH

REGISTRATION NO. _____ GRADE _____

DATE OF ISSUE _____

NAME _____

ADDRESS _____

_____ PIN _____

TEL. NO. _____

SPECIMEN SIGNATURE

SIGNATURE OF REGISTERING

AUTHORITY

Stamp.

RENEWAL INFORMATION

Site supervisor's registration is hereby renewed for the period from

1st April _____ to 31st March _____

Receipt No. _____

Date : _____

License Fee : Rs. _____

For
Head Clerk City Engineer
Municipal Corporation of Greater Bombay

RENEWAL INFORMATION

Site supervisor's registration is hereby renewed for the period from

1st April _____ to 31st March _____

Receipt No. _____

Date : _____

License Fee : Rs. _____

For
Head Clerk. City Engineer
Municipal Corporation of Greater Bombay,

WORK ENTRY PAGE NO

The item against which completion of assignment column has been filled in will not be accounted for number of job.

1	2	3	4	5	6	
S.No.	Details & Description of work with file no.	Size	Date of Appointment Assignment	Completion of Assignment a) Completion b) Termination	Architect's Name and Counter Signature	

APPOINTMENT, DUTIES, RIGHTS & RESPONSIBILITIES.

(A) APPOINTMENT:

The construction Supervisor shall be nominated or approved by the Architect/Licensed Surveyor, appointed and paid by the Developer/Employer. He shall act as construction Supervisor for the Developer/Employer, under the overall direction and control of the Architect/Licensed Surveyor and will be responsible to the Registering Authority through the Architect/Licensed Surveyor.

(B) (I) PRIMARY DUTY :

The primary duty of the construction supervisor is to endeavour at all times, during his employment on a particular site, to ensure that the construction works are carried out in accordance with contract Document if there are any, or else in accordance with the good construction practice and specifications and such other written instructions as may be issued by the Architect/Licensed Surveyor and Consulting Structural Engineer from time to time. Unless otherwise authorised, he shall be constantly present on the site during normal working hours except when his duties require him to leave the site, and he shall also be present during overtime working hours of critical constructions, when so desired by the Architect/Licensed Surveyor.

B-II DETAILED DUTIES :

The basic detailed duties of the Construction Supervisor, subject to variation by the Architect/Licensed Surveyor will be as follows :

- a) Examine and be thoroughly familiar with the drawings and specifications and refer any discrepancies or queries to the Architect/Licensed Surveyor for determination.
- b) Anticipate work to be put in hand, and endeavour to ensure that all necessary drawings and information are available on the site when required.
- c) Recommend to the Architect/Licensed Surveyor any measures which he considers to be in the best interest of the work, and particularly measures to avoid faults.
- d) Check the materials and workmanship to ensure that the standards required under the Contract/ Specifications if there are any, or as per good construction practice, are maintained, and take samples and make tests as required.
- e) Advise the contractor's site representative as soon as possible of any material or workmanship which does not comply with the requirements of the contract or is otherwise unsatisfactory. Confirm the advise in writing where appropriate, request written directions from the

Architect/Licensed Surveyor, _____ Check and record when rectified.

f) Attend all site meetings dealing with the carrying _____
out of the work, and act for the Architect/Licensed _____ Surveyor
when specifically authorised to do so.

g) Maintain a daily record (Job Diary) of actions taken _____
in connection with the (a) to (f) above, and record _____ in addition:

(i) Significant deliveries of materials to the site.

(ii) Significant stages of the work commenced, in _____
hand, or completed.

(iii) Disputes, accidents or other events which may _____
later need to be recalled.

(iv) Significant Visitors to the site.

(v) All oral directions given on site by the _____
Architect/Licensed Surveyor or his consultants. _____ At the
first opportunity, the Construction _____ Supervisor shall
obtain the confirmation of the _____ Architect/Licensed Surveyor
or his Consultants to _____ such oral directions.

(vi) Such other information as the Architect/Licensed _____
Surveyor may reasonably require.

h) Maintain orderly records of all documents received _____
relating to the works.

i) Make every effort to preserve an atmosphere of _____
harmonious understanding and co-operation between all _____ parties
engaged on the works.

j) Make inspections of work and materials in the _____
Contractor's or Sub-contractor's yard or workshop _____ where
appropriate. Inspect any materials located off _____ the site as
directed by the Architect/Licensed _____ Surveyor.

k) The Construction Supervisor shall, wherever possible, _____
accompany the Architect/Licensed Surveyor or any _____ authorised
visitor on the site.

l) Maintain a checklist with all details recorded and _____
signed as work progresses for each stage and important _____ items of
construction work.

B-III ADDITIONAL DUTIES :

In addition to the duties listed under Section

B-I & B-II, the Architect/Licensed Surveyor shall be entitled to require the construction Supervisor to :

- a) Verify the setting out of works.
- b) Verify and record foundation conditions and foundation tests and with results, if performed.
- c) Participate in and record any other tests of material or work on site.
- d) Make site sketches to illustrate reports to Architect/ Licensed Surveyor/ Consulting Structural Engineer.
- e) Record the positions of drains and other sub-ground services.
- f) Such other duties as are matter of understanding and contractual obligations on his appointment.
- g) Allocate duties and generally direct the work of other assisting Construction Supervisors where they are employed.

C) RIGHTS :

- a) The Construction Supervisor shall have right to have access to all working drawings, Municipal Permissions and Certified Copy of Approved Drawings, only so long as he is in employment at particular site.
- b) He shall have right to inform the Architect/ Licenced Surveyor where applicable, and Consulting Structural Engineer of the defects and/or variations in the work and/or materials of construction.
- c) He shall have right to obtain clarifications or directions, where he has doubts about quality of materials of construction and/or items of work etc.

D) LIMITATIONS :

The Powers and/or Rights of Construction Supervisor shall be limited to those necessary to enable him to discharge the responsibilities set out under (B) above.

Further, he shall not:

- a) Make any modification to the Works as designed.
- b) Require the contractor to carry out the work in excess of what may be reasonably implied from the Drawings and

Specifications and such variations as _____ the Architect/Licensed
Surveyor may authorise.

E) RESPONSIBILITIES :

With due accountability in terms of (A) to (D) above, it will also be
responsibility of the Construction Supervisor to

a) hand-over, on completion of work or on his
terminations, whichever is earlier. all records _____ including
Checklist duly filled in, recorded and _____ signed by him for the
stage of work supervised by _____ him.

b) Issue Completion Certificate of Construction
Supervisor in the event of completion or part _____ completion
certification of construction Supervision _____ for the work done during
his employment in the _____ prescribed format.

c) Hand-over. on his termination or completion of work
whichever is earlier original documents related to _____ work
including Original Reports, completed Checklist, _____ other drawings
and instructions issued by Architect/ _____ Licensed Surveyor/
Consulting Structural Engineer and _____ other Consultants, to the
Architect/Licensed _____ Surveyor.

d) He shall be generally responsible for quality of all
constructions done, save and except the design and _____ details
supplied by Architect/ Licensed Surveyor/ _____ Consulting
Structural Engineer and other consultants _____ where applicable,
including methodology of _____ construction, workmanship
employed and the finished _____ construction, done under his tenure as
Construction _____ Supervisor.

INTERPRETATION :

In all questions of interpretations of these or any other instructions
about the discharge of his duties, the Construction Supervisor should consult
with the Architect/Licensed Surveyor, when in doubt.

He should obtain from the Architect/Licensed Surveyor, at the
commencement of the project a clear understanding of the division of
responsibilities, particularly where other site staff are employed.

PROJECT _____

LOCATION _____

OWNER _____

DEVELOPER _____

ARCHITECT _____

CONSULTING
STR. ENGINEER _____

CONTRACTORS _____

CHECK-LIST FOR ACTIVITIES ON DEVELOPMENT & CONSTRUCTION

BY SITE SUPERVISOR _____

REGISTRATION NO. _____

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
------	-------------------	------	----	------	---------

- | | | | | | |
|-----|------------------------------------|--|--|--|--|
| I | RECEIPT OF DRAWINGS | | | | |
| (a) | CERTIFIED COPY OF APPROVED DRAWING | | | | |
| (b) | CENTRE LINE DRG. | | | | |
| (c) | R.C.C. FOUND DRG. | | | | |
| (d) | OTHER DRGS. | | | | |

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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II PRE-CONSTRUCTION
ACTIVITIES

- (a) CHECK PLOT BOUNDARIES
- (b) CHECK SITE DIMENSIONS
- (c) SET-OUT PLINTH
- (d) ERECTION OF SIGHT RAILS
- (e) MARK CENTRE-LINES
OF COLUMNS
- (f) GET CENTRE-LINES CHKD
BY ARCHITECT
- (g) CHECK OPEN SPACES (MARGINS)
AS REQD WITH APPROVED DRG.
- (h) GET CLARIFICATION FROM
ARCHITECT IF (g) WRONG
- (i) ALLOW EXCAVATION OR PILING
IF (a) TO (g) IS O.K.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
III FOUNDATION WORK					
(CONVENTIONAL)					
(IF PILING GO TO (IV))					
(a)	EXCAVATE UPTO ATLEAST 1.5 m OR TO HARD STRATA				
(b)	GET FOUNDING STRATA CHKD BY STRUCTURAL ENGINEER				
(c)	GET INSTRUCTIONS FROM STRUCTURAL ENGINEER BEFORE LAYING P.C.C.				
(f)	GET REVISED DRGS. FOR FOUND. IF NECESSARY FROM STR. ENGR.				
(g)	CHECK QUALITY OF SAND, STONE METAL & CEMENT				
(h)	CHECK IF MIXING WATER SUITABLE FOR CONSTRUCTION				
(i)	CHECK IF SOIL STABILISATION IS PROPERLY DONE IF SO REQD.				
(j)	CHECK THE PIT DRY PRIOR TO LAYING P.C.C.				
(k)	ENSURE PROPER THICKNESS OF CONCRETE LAID				
(l)	ENSURE THE TOP OF CONCRETE AS LAID BEING IN LEVEL AND OF REQD. SIZE				

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(iv)	FOUNDATIONS (PILING) (IF APPLICABLE)				
(a)	RECEIVE APPROVED SPECIFICATIONS FOR PILING FROM STRUCTURAL ENGINEER				
(b)	RECORD NAME & ADDRESS OF PILING CONTRACTOR				
(c)	GET PILING LAY-OUT FROM CONSULTING STRUCTURAL ENGR.				
(d)	CHECK ADEQUACY OF BENTONITE SLURRY AND ADEQUATE FACILITY ESTABLISHED BY PILING CONTRACTOR.				
(e)	CHECK CORRECTNESS OF RIG ERECTION AT REQD CENTRE FOR EVERY PILE				
(e)	OBTAIN FROM STR. ENGR, INSTRUCTIONS/ DETAILS OF RECORDS TO BE KEPT FOR PILING.				
(f)	CHECK CHISSEL FOR ADEQUATE SIZE, WEIGHT AND CUTTING EDGE BEING IN ORDER				
(g)	GET FOUNDING STRATA FOR RESTING OF PILES CHECKED & APPROVED BY STR. ENGR.				
(f)	GET INSTRUCTIONS FROM STR. ENGR. FOR GUIDELINES FOR FOUNDING OF PILES				
(g)	MAINTAIN RECORDS FOR EVERY PILE AS WORK PROCEEDS				
(h)	ENSURE INTERMITTENTLY THE ADEQUACY OF BENTONITE AS TO SPECIFIC GRAVITY AND PROPER RECYCLING				

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(V)	FOUNDATION CONCRETING CONVENTIONAL (IF PILING GO TO (VI))				
(a)	MARK ACTUAL CENTRES OF COLUMNS ON P.C.C.				
(b)	CHECK CORRECTNESS OF REINFORCEMENT CAGE BEFORE LOWERING				
(c)	CHECK CORRECTNESS OF PLACEMENT OF REINF. CAGE OF FOOTING & FOUNDN. COL.				
(d)	CHECK COLUMN CENTRES NOW				
(f)	CHECK QUALITY OF SAND, STONE METAL & CEMENT				
(g)	CHECK IF MIXING WATER OF ACCEPTABLE QUALITY				
(h)	CHECK IF REINFORCING STEEL OF REQD. QUALITY				
(i)	CHECK PROPER COVER TO REINFORCEMENT				
(j)	CLEAN TOP OF P.C.C. WITH SPLASH OF WATER				
(k)	ENSURE PROPER MIXING OF CONCRETE & ITS TRANSPORT				
(l)	ENSURE PROPER PLACING OF OF CONCRETE TO REQD. SIZE, DEPTH & PROFILE				
(m)	ENSURE THAT PIT IS KEPT DE-WATERED TILL INITIAL SETTING OF FOUNDN. CONCRETE				
(n)	PREPARE CONCRETE CUBES WITH CONCRETE DRAWN FROM ACTUAL CONCRETE BEING PLACED AND				

INSTALL IDENTIFICATION MARKS

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
VI	PILE FOUNDATION CONCRETING (Where Applicable)				
	(a) CHECK IF REINFORCEMENT STEEL OF REQD. QUALITY				
	(b) ENSURE THAT THE LENGTH OF REINFORCEMENT CAGE IS ADEQUATE FOR THE FINAL BORE LENGTH.				
	(c) CHECK THAT THE REINFORCEMENT WILL HAVE ADEQUATE COVER.				
	(d) CHECK QUALITY OF SAND, STONE METAL & CEMENT.				
	(e) CHECK IF MIXING WATER OF ACCEPTABLE QUALITY.				
	(f) ENSURE THAT THE BORE IS CLEANED OF ALL LOOSE MATERIALS.				
	(g) ENSURE PROPER MIXING OF CONCRETE & ITS PLACEMENT.				
	(h) ENSURE THAT BOTTOM OF TREMIE PIPE HAS ADEQUATE EMBEDMENT IN CONCRETE AS CONCRETING PROCEEDS.				
	(i) PREPARE CONCRETE CUBES WITH CONCRETE DRAWN FROM ACTUAL CONCRETE BEING PLACED AND INSTALL IDENTIFICATION MARKS.				

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(VI) PILECAPS & TIE BEAMS
(Where Applicable)

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|-----|---|--|--|--|--|
| (a) | CHECK & RECORD ACTUAL CENTRES OF PILES AS CONCRETED. | | | | |
| (b) | REPORT THE ACTUAL DATA TO CONSULTING STRUCTURAL ENGINEER & OBTAIN FROM HIM ANY REVISIONS IN DESIGN OF PILECAPS AND TIE-BEAMS IF REQD. | | | | |
| (c) | ENSURE CUTTING OF PILE HEADS TO REQD LEVEL. | | | | |
| (d) | CHECK ADEQUACY AND QUALITY OF SHUTTERING FOR PILE-CAPS & TIE-BEAMS. | | | | |
| (e) | CHECK QUALITY OF REINFORCEMENT STEEL. | | | | |
| (f) | AFTER ERECTION OF COLUMN REINFORCEMENT GAGES, CHECK COLUMN CENTRES BEING AS REQD BY CENTRE-LINE DRAWINGS. | | | | |
| (g) | CHECK IF MIXING WATER OF ACCEPTABLE QUALITY. | | | | |
| (h) | CHECK QUALITY OF SAND, STONE METAL & CEMENT. | | | | |
| (i) | ENSURE PROPER PREPARATION OF BEDDING UNDER PILE-CAPS & TIE-BEAMS. | | | | |
| (j) | ENSURE PROPER SEALING OF JUNCTION OF SIDE SHUTTERING WITH BOTTOM TO PREVENT LOSS OF CEMENT SLURRY | | | | |
| (k) | CHECK PROPER COVER TO REINFORCEMENT BARS. | | | | |

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(VII) CONTD.

- (l) GET PREPARATORY WORK CHECKED BY CONSULTING STRUCTURAL ENGINEER PRIOR TO CONCRETING
- (m) ENSURE TOP OF P.C.C. BEDDING CLEANED WITH SPLASH OF WATER.
- (n) ENSURE PROPER MIXING OF CONCRETE & ITS PLACEMENT.
- (o) IF THERE IS WATER-LOGGING, ENSURE THAT THE PIT IS KEPT DE-WATERED TILL INITIAL SETTING OF PILE-CAPS AND TIE BEAMS.
- (p) PREPARE CONCRETE CUBES WITH CONCRETE DRAWN FROM ACTUAL CONCRETE BEING PLACED & INSTALL IDENTIFICATION MARKS.
- (q) GET THE CONCRETE CUBES TESTED AT SPECIFIED AGE, RECORD RESULTS & INFORM THE CONSULTING STRUCTURAL ENGINEER & ARCHITECT.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(VIII)	PLINTH/FOUNDATION COLUMNS				
(a)	ENSURE PROPER ERECTION OF SHUTTERING FOR FOUNDATION/PLINTH COLUMNS.				
(b)	ENSURE STIFFNESS OF COLUMN FORMWORK.				
(c)	ENSURE PROPER COVER TO REINFORCEMENT BARS.				
(d)	CHECK QUALITY OF SAND, STONE METAL & CEMENT.				
(e)	CHECK IF MIXING WATER OF ACCEPTABLE QUALITY.				
(f)	ENSURE TOP OF FOOTING AREA OF SEATING OF COLUMN IS CLEANED BY SPLASH OF WATER.				
(g)	ENSURE PROPER MIXING OF CONCRETE INCLUDING THE WATER/CEMENT RATIO.				
(h)	ENSURE PROPER TRANSPORT AND PLACEMENT OF CONCRETE.				
(i)	ENSURE THAT THE PIT IS KEPT DEWATERED TILL INITIAL SETTING OF CONCRETE.				
(j)	PREPARE CONCRETE CUBES WITH CONCRETE DRAWN FROM ACTUAL				

CONCRETE BEING PLACED AND
INSTALL IDENTIFICATION MARKS.

- (k) GET THE CONCRETE CUBES
TESTED AT SPECIFIED AGES,
RECORD THE RESULTS AND
INTIMATE THE RESULTS TO
CONSULTING STRUCTURAL
ENGINEER AND ARCHITECT.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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IX PLINTH BEAMS

- (a) CHECK ACTUAL CENTRES OF
COLUMNS AS CONCRETED AS
REQD BY CENTRE-LINE DRG.
- (b) IF DESCRIPANCY IN (a),
OBTAIN FURTHER INSTRUC-
TIONS FROM ARCHITECT
AND/OR STRUCT. ENGINEER
- (c) CHECK ADEQUACY & QUALITY
OF SHUTTERING.
- (d) ENSURE PROPER CLOSING OF
GAPS IN
- (i) SIDE SHUTTERING
(ii) SIDE & BOTTOM JUNCTION
(iii) COLUMN CAPS
- (e) CHECK QUALITY OF REINFO-
RCEMENT STEEL
- (f) ENSURE PROPER CUTTING,
BENDING, BINDING & PLACING
OF REINFORCEMENT STEEL
- (g) CHECK PROPER COVER TO REIN-
FORCEMENT STEEL.
- (h) GET PREPARATORY WORK CHECKED
BY ARCHITECT & STRUCT. ENGR.
- (i) CHECK QUALITY OF SAND, STONE
METAL & CEMENT.

(j) CHECK IF MIXING WATER IS OF ACCEPTABLE QUALITY.

(k) ENSURE CLEANING OF INSIDE OF FORMWORK OF ALL LOOSE FOREIGN MATERIALS.

(l) ENSURE PROPER MIXING OF CONCRETE INCLUDING THE WATER/CEMENT RATIO.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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IX PLINTH BEAMS (CONT'D.)

(m) ENSURE PROPER TRANSPORT AND PLACEMENT OF CONCRETE INCLUDING ITS COMPACTION.

(n) IF THERE IS WATER-LOGGING ENSURE DEWATERING TILL INITIAL SET OF CONCRETE.

(o) PREPARE CONCRETE TEST CUBES WITH CONCRETE DRAWN FROM ACTUAL CONCRETE BEING PLACED AND INSTALL IDENTIFICATION MARKS.

(p) CURE THE TEST CUBES AS PER REQUIREMENT.

(q) GET THE CONCRETE CUBES TESTED AT SPECIFIED AGES, RECORD RESULTS & INTIMATE THE RESULTS TO CONSULTING STRUCTURAL ENGINEER AND ARCHITECT.

(r) ENSURE PROPER CURING OF THE WORK CONCRETED FOR REQUIRED PERIOD.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(X) (A) COLUMNS IN GROUND FLOOR

(a) ENSURE PROPER ERECTION OF SHUTTERING FOR COLUMNS ON TRUE CENTRES

(b) ENSURE STIFFNESS OF COLUMN FORMWORK.

(c) ENSURE PROPER COVER TO REINFORCEMENT BARS.

(d) CHECK QUALITY OF SAND, STONE METAL & CEMENT.

(e) CHECK IF MIXING WATER OF ACCEPTABLE QUALITY.

(f) CLEAN AREA OF SEATING OF COLUMN IS CLEANED BY SPLASH OF WATER.

(g) ENSURE THAT THE BOTTOM JUNCTION OF FORMWORK HAS NO GAPS TO PREVENT LOSS OF CEMENT SLURRY.

(g) ENSURE PROPER MIXING OF CONCRETE INCLUDING THE WATER/CEMENT RATIO.

- (h) ENSURE PROPER TRANSPORT AND PLACEMENT OF CONCRETE, INCLUDING COMPACTION.
- (j) PREPARE CONCRETE CUBES WITH CONCRETE DRAWN FROM ACTUAL CONCRETE BEING PLACED AND INSTALL IDENTIFICATION MARKS.
- (k) GET THE CONCRETE CUBES TESTED AT SPECIFIED AGES, RECORD THE RESULTS AND INTIMATE THE RESULTS TO CONSULTING STRUCTURAL ENGINEER AND ARCHITECT.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XI) SLAB @ FIRST FLOOR LEVEL

- (a) CHECK ACTUAL CENTRES OF COLUMNS AS CONCRETED TO AS REQD. BY CENTRE LINE DRAWINGS.
- (b) IF DESCRIPTANCY IN (a), OBTAIN FURTHER INSTRUCTIONS FROM ARCHITECT AND/OR STRUCT. ENGINEER.
- (c) CHECK ADEQUACY & QUALITY OF SHUTTERING MATERIALS.
- (d) CHECK ADEQUACY & QUALITY OF MATERIALS FOR CENTERING LIKE PROPS, BRACINGS ETC.
- (e) ENSURE PROPER CLOSING OF GAPS IN SHUTTERING AT:
 - (i) BEAM SIDES
 - (ii) BEAM SIDES & BOTTOMS
 - (iii) COLUMN CAPS
 - (iv) SLAB BOTTOMS & BEAM SIDES
 - (v) SLAB SHUTTERING
- (f) CHECK QUALITY OF REINFO-

REINFORCEMENT STEEL.

- (g) ENSURE PROPER CUTTING, BENDING, BINDING & PLACING OF REINFORCEMENT STEEL.
- (h) ENSURE PROPER COVER TO REINFORCEMENT STEEL.
- (i) ENSURE CLEANING OF FORMWORK OF ALL FOREIGN MATERIALS.
- (j) ENSURE THAT ANY DISTURBANCE TO REINFORCEMENT STEEL BY OTHER SUB-CONTRACTORS IS SET RIGHT.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(XI)	SLAB @ FIRST FLOOR LEVEL (CONTD.)				
(k)	ENSURE THAT ALL PIPES, SLEEVES, INSERTS ETC. ARE INSTALLED AT REQD. LOCATIONS PRIOR TO CONCRETED TO AVOID CUTTING INTO FINAL SET CONCRETE AT FUTURE DATE.				
(l)	ENSURE THAT UPPER FLOOR COLUMN DOWEL BARS ARE TIED WITH RINGS.				
(m)	GET THE PREPARATORY WORK AFTER ENSURING ALL THE ABOVE, BY CONSULTING STR. ENGINEER AND ARCHITECT.				
(n)	CHECK IF MIXING WATER IS OF ACCEPTABLE QUALITY.				
(o)	CHECK QUALITY OF SAND, STONE METAL & CEMENT.				
(p)	ENSURE PROPER MIXING OF				

CONCRETE INCLUDING THE
WATER/CEMENT RATIO.

- (q) ENSURE PROPER TRANSPORT
AND PLACEMENT OF CONCRETE
INCLUDING ITS COMPACTION.
- (r) PREPARE CONCRETE TEST
CUBES WITH CONCRETE DRAWN
FROM ACTUAL CONCRETE BEING
PLACED AND INSTALL IDENTI-
FICATION MARKS.
- (s) ENSURE PROPER CURING OF
CONCRETE & TEST CUBES.
- (t) GET THE CONCRETE CUBES
TESTED AT SPECIFIED AGES
RECORD RESULTS AND INTIMATE
THEM TO CONSULTING STRUCTURAL

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XI) SLAB @ FIRST FLOOR LEVEL
(CONTD.)

- (t) CONTD.
ENGINEER AND ARCHITECT.
- (u) ENSURE PROPER HACKING OF
EXPOSED FACES OF CONCRETE
IMMEDIATELY ON REMOVAL
OF FORMWORK TO ENSURE
PROPER KEYING AND BOND
OF LATER FINISHING.
(NOT IF ARCHITECT HAS
SPECIFIED EXPOSED CONCRETE)

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(XII)	BRICK MASONRY WORK				
(a)	CHECK QUALITY OF BRICKS.				
(b)	CHECK QUALITY OF SAND AND CEMENT.				
(c)	ENSURE WETTING OF BRICKS IMMEDIATELY PRIOR TO USE IN MASONRY.				
(d)	ENSURE APPLICATION OF ROUGH DASH OF CEMENT MORTAR ON FACES OF CONCRETE TO WHICH MASONRY WILL ABUTT.				
(e)	ENSURE THAT MASONRY UNITS ARE PLACED AS NEAR TO (d) ABOVE SO AS TO HAVE MINIMUM THICKNESS OF JOINTING				

MORTAR AT THOSE JUNCTIONS.

- (f) ENSURE THAT ALL VERTICAL JOINTS ARE STAGGERED.
- (g) ENSURE PROPER MIX OF JOINTING MORTAR.
- (h) ENSURE PROPER BEDDING AT EVERY COURSE OF MASONRY.
- (i) ENSURE PROVISION OF STIFFENING BANDS EITHER IN R.C.C. PATLI OR FLAT ARCHED MASONRY (KARANJA) AT REQUIRED HEIGHTS.
- (j) ENSURE CONTROL OF RAISING OF MASONRY IN ONE OPERATION.
- (k) ENSURE PROPER ALIGNMENT AND PLUMB CONTROL OF MASONRY.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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**(XII) BRICK MASONRY WORK
(CONTD.)**

- (l) ENSURE ERECTION OF DOOR AND WINDOW FRAMES IN POSITION INCLUDING HOLDFASTS & OTHER INSERTS.
- (m) ENSURE THAT AS MASONRY IS REACHING CEILING, THE LAST THREE TO FOUR COURSES ARE SO ADJUSTED THAT THE JOINT AT CEILING ABUTMENT WILL HAVE MINIMUM THICKNESS.
- (n) ENSURE THAT THE JOINTS ARE TOOLED BY RAKING AND ONLY AFTER INITIAL MORTAR SET.
- (o) ENSURE PROPER CURING OF CONSTRUCTED MASONRY.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(XIII)	CONCRETE BLOCK MASONRY				
(a)	CHECK QUALITY OF BLOCKS				
(b)	CHECK QUALITY OF SAND AND CEMENT.				
(c)	ENSURE WETTING OF BLOCKS IMMEDIATELY PRIOR TO USE IN MASONRY.				
(d)	ENSURE APPLICATION OF ROUGH DASH OF CEMENT MORTAR ON FACES OF CONCRETE TO WHICH MASONRY WILL ABUTT.				
(e)	ENSURE THAT MASONRY UNITS ARE PLACED AS				

NEAR TO (d) ABOVE SO
AS TO HAVE MINIMUM
THICKNESS OF JOINTING
MORTAR AT THOSE JUNCTIONS.

- (f) ENSURE THAT ALL VERTICAL JOINTS ARE STAGGERED.
- (g) ENSURE PROPER MIX OF JOINTING MORTAR.
- (h) ENSURE PROPER BEDDING AT EVERY COURSE OF MASONRY.
- (i) ENSURE PROVISION OF STIFFENING BANDS EITHER IN R.C.C. PATLI AS SPECIFIED BY ARCHITECT AT REQUIRED HEIGHTS.
- (j) ENSURE CONTROL OF RAISING OF MASONRY IN ONE OPERATION.
- (k) ENSURE PROPER ALIGNMENT AND PLUMB CONTROL OF MASONRY.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XIII) CONCRETE BLOCK MASONRY
(CONTD.)

- (l) ENSURE ERECTION OF DOOR AND WINDOW FRAMES IN POSITION INCLUDING HOLDFASTS & OTHER INSERTS.
- (m) ENSURE THAT AS MASONRY IS REACHING CEILING, THE LAST THREE TO FOUR COURSES ARE SO ADJUSTED THAT THE JOINT AT CEILING ABUTMENT WILL HAVE MINIMUM THICKNESS.
- (n) ENSURE THAT THE JOINTS ARE TOOLED BY RAKING AND ONLY AFTER INITIAL MORTAR SET.
- (o) ENSURE PROPER CURING OF CONSTRUCTED MASONRY.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XIV) INTERNAL MERO FINISHED
PLASTER

- (a) ENSURE SCRAPPING OF ANY LOOSE MORTAR AT JUNCTION OF WALL WITH CEILING.
- (b) ENSURE THAT ANY GAPS AT MASONRY WALL JUNCTION WITH CEILING ARE FILLED WITH A DRY-PACK LIKE FRESH MORTAR.
- (c) ENSURE REPEATING OF (a) & (b) ABOVE, AT SIDE JUNCTIONS WITH R.C.C.

NO.	DATE	BY	CHKD	REMARKS
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MEMBERS.

- (d) ENSURE PROVISION OF GUIDE BLOCKS (DHADAS) FOR ENSURING CONTROL OF PLUMB & ALIGNMENT.
- (e) CHECK QUALITY OF SAND AND CEMENT.
- (f) ENSURE PROPER MIX OF MORTAR FOR PLASTERING.
- (g) ENSURE THAT MORTAR SPILLINGS WHICH HAVE INITIAL SET ARE NOT RE-USED OR RE-MIXED IN FRESH MORTAR.
- (h) ENSURE THAT FINISHED SURFACE IS IN LINE, LEVEL AND PLUMB.
- (i) ENSURE THAT THE FINAL SURFACE TO RECEIVE NERU OR OTHER FINISH IS TOOLED BY THOROUGHLY COMBING WITH WAVY LINES ABOUT 12mm APART & 3mm DEEP.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(XIV)	INTERNAL NERU FINISHED PLASTER (CONTD.)				
(j)	ENSURE THAT PRIOR TO APPLYING NERU (LIME PUTTY) THE BACK-COAT HAS HARDED.				
(k)	ENSURE THAT THE NERU IS WELL RUBBED ONTO THE BACKING BY REPEATATIVE WORKING IN WITH TROWELS.				
(l)	ENSURE PROPER CURING OF PLASTER FOR REQUIRED PERIODS.				

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XV) EXTERNAL SAND FACED
PLASTER

- (a) ENSURE SCRAPPING OF ANY
LOOSE MORTAR AT JUNCTION
OF WALL WITH CEILING.
- (b) ENSURE THAT ANY GAPS AT
MASONRY WALL JUNCTION
WITH CEILING ARE FILLED
WITH A DRY-PACK LIKE
FRESH MORTAR.

- (c) ENSURE REPEATING OF (a) & (b) ABOVE, AT SIDE JUNCTIONS WITH R.C.C. MEMBERS.
- (d) ENSURE PROVISION OF GUIDE BLOCKS (DHADAS) FOR ENSURING CONTROL OF PLUMB & ALIGNMENT.
- (e) CHECK QUALITY OF SAND AND CEMENT.
- (f) ENSURE PROPER MIX OF MORTAR FOR PLASTERING.
- (g) ENSURE THAT MORTAR SPILLINGS WHICH HAVE INITIAL SET ARE NOT RE-USED OR RE-MIXED IN FRESH MORTAR.
- (h) ENSURE THAT FINISHED SURFACE IS IN LINE, LEVEL AND PLUMB.
- (i) ENSURE THAT THE FINAL SURFACE TO RECEIVE SECOND COAT OF PLASTER IS TOOLED BY THOROUGHLY COMBING WITH WAVY LINES ABOUT 12mm APART & 3mm DEEP.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
(XV)	EXTERNAL SAND FACED PLASTER (CONTD.)				
(j)	ENSURE THAT PRIOR TO APPLYING FINISHING COAT THE BACK-COAT HAS HARDED.				
(k)	ENSURE THAT THE SAND FOR				

USE IN FINAL COAT IS PROPERLY SCREENED FOR DESIRED GRAINS IN FINISH.

- (l) ENSURE THAT THE BASE COAT IS CURED FOR ATLEAST TWO DAYS PRIOR TO APPLYING THE FINISHING COAT.
- (m) ENSURE THAT THE FINISHING COAT DOES NOT EXCEED 8mm IN THICKNESS.
- (n) ENSURE THAT THE FINAL FINISHED SURFACE IS IN LINE, LEVEL & PLUMB WITH REQUIRED ENRICHMENT AS PER DETAILS LIKE BANDS, GROOVES, DRIP MOULDS ETC.
- (l) ENSURE PROPER CURING OF PLASTER FOR REQUIRED PERIODS.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XVI) CEMENT/MOSAIC TILE FLOORING.

- (a) ENSURE THAT THE AREA TO RECEIVE TILE FLOORING IS CLEANED OF ALL LOOSE FOREIGN MATERIALS INCLUDING OILY AND GREASEY

SURFACE.

- (b) CHECK QUALITY OF LIME FOR BEDDING AND SAND.
- (c) CHECK QUALITY OF CEMENT.
- (d) ENSURE PROVISION OF GUIDE BLOCKS (DHADAS) FOR PROPER LEVELS AND SLOPES AS REQD.
- (e) ENSURE PROPER PROPORTION OF MIXING OF BEDDING MATERIAL.
- (f) ENSURE THAT THE FINAL TOP SURFACE OF BEDDING LAID IS IN CONFORMITY WITH DESIRED LEVELS OF FLOORING.
- (g) ENSURE THAT SOUPY MORTAR IS NOT USED FOR FILLING OF LARGE DEPRESSIONS IN BEDDING.
- (h) ENSURE PROPER CONSISTANCY OF CEMENT SLURRY BEING USED FOR BEDDING AND FIXING THE TILES.
- (i) ENSURE PROPER LEVELS OF TILING AS WORK PROCEEDS.
- (j) ENSURE THAT THERE IS NO WIDE VARIATION OF LEVELS AT INDIVIDUAL JOINTS THAT MAY REQUIRE EXCESSIVE SCRAPPING WHILE POLISHING.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XVI) CEMENT/MOSAIC TILE FLOORING (CONTD.)

- (k) ENSURE THAT THE JOINTS ARE POINTED AND SEALED AFTER LAYING.

(1) ENSURE THAT MECHANICAL POLISHING IS ALLOWED ONLY AFTER THE TILES HAVE FINALLY SET.

(m) ENSURE PROPER POLISHING TO GIVE SMOOTH FINISH.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XVII) CERAMIC TILE FLOORING.

(a) ENSURE THAT THE AREA TO RECEIVE TILE FLOORING

IS CLEANED OF ALL LOOSE FOREIGN MATERIALS INCLUDING OILY AND GREASEY SURFACE.

- (b) CHECK QUALITY OF LIME FOR BEDDING AND SAND.
- (c) CHECK QUALITY OF CEMENT.
- (d) ENSURE PROVISION OF GUIDE BLOCKS (DHADAS) FOR PROPER LEVELS AND SLOPES AS REQD.
- (e) ENSURE PROPER PROPORTION OF MIXING OF BEDDING MATERIAL.
- (f) ENSURE THAT THE FINAL TOP SURFACE OF BEDDING LAID IS IN CONFORMITY WITH DESIRED LEVELS OF FLOORING.
- (g) ENSURE THAT SOUPY MORTAR IS NOT USED FOR FILLING OF LARGE DEPRESSIONS IN BEDDING.
- (h) ENSURE PROPER CONSISTANCY OF CEMENT PASTE BEING USED FOR BEDDING AND FIXING THE TILES.
- (i) ENSURE PROPER LEVELS OF TILING AS WORK PROCEEDS.
- (j) ENSURE THAT THERE IS NO VARIATION OF LEVELS AT INDIVIDUAL JOINTS.
- (k) ENSURE THAT THE JOINTS ARE POINTED WITH NEAT CEMENT OF MATCHING COLOUR.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XVII) CERAMIC TILE DADO

- (a) ENSURE THAT THE AREA TO RECEIVE TILE FLOORING IS CLEANED OF ALL LOOSE FOREIGN MATERIALS INCLUDING OILY AND GREASEY SURFACE.
- (b) ENSURE THAT ALL CONCEALED PIPING ETC. ARE INSTALLED.
- (c) CHECK QUALITY OF CEMENT.
- (d) ENSURE PROVISION OF GUIDE BLOCKS (DHADAS) FOR PROPER LEVELS AS REQUIRED.
- (e) ENSURE PROPER PROPORTION OF MIXING OF BACKING MATERIAL AND ITS PROVISION.
- (f) ENSURE THAT THE FINAL SURFACE OF BACKING LAID IS IN CONFORMITY WITH DESIRED LINE & LEVEL & PLUMB.
- (g) ENSURE THAT SOOPY MORTAR IS NOT USED FOR FILLING OF LARGE DEPRESSIONS IN BACKING.
- (h) ENSURE PROPER CONSISTANCY OF CEMENT PASTE BEING USED FOR BEDDING AND FIXING THE TILES.
- (i) ENSURE PROPER LEVELS OF TILING AS WORK PROCEEDS.
- (j) ENSURE THAT THERE IS NO VARIATION OF LEVELS AT INDIVIDUAL JOINTS.
- (k) ENSURE THAT THE JOINTS ARE POINTED WITH NEAT CEMENT OF MATCHING COLOUR.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XIX) TOILETS WATERPROOFING

- (a) ENSURE THAT ALL PIPES & SLEEVES ARE INSTALLED PRIOR TO CARRYING OUT WORK OF WATER-PROOFING.
- (b) ENSURE THAT ALL INTERNAL WATER SUPPLY AND DRAINAGE LINES FOR CONCEALED PLUMBING ARE LAID, INSTALLED AND TESTED PRIOR TO APPLYING WATER-PROOFING TREATMENT ON WALLS.
- (c) ENSURE THAT DURING FINAL INSTALLATION OF SANITARY FIXTURES, THE WATER-PROOFING IS NOT DAMAGED.
- (d) ENSURE PROPER REPAIRS TO WATER-PROOFING IF DAMAGED DURING (c) ABOVE.
- (e) ENSURE TESTING OF ALL JOINTS OF SANITARY FIXTURES INSTALLED, FOR ANY LEAKAGES AND THEIR SEALING, PRIOR TO BEING FINALLY COVERED/EMBEDDED.
- (f) TEST EFICACY OF WATER-TIGHTNESS AND WATER-PROOFING BY FLOODING.

ITEM	BRIEF DESCRIPTION	CHKD	BY	DATE	REMARKS
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(XX) TERRACE WATER-PROOFING

- (a) OBTAIN DETAILED SPECIFICATIONS FROM THE AGENCY FOR WATER-PROOFING.
- (b) ENSURE THAT THE TOP OF SURFACE TO RECEIVE THE WATER-PROOFING TREATMENT IS CLEANED OF ALL LOOSE FOREIGN MATERIALS, OIL AND GREASE.
- (c) ENSURE THAT THE BASE COURSE IS LAID TO REQD. SLOPES.
- (d) ENSURE THAT ALL PIPE OUT-LETS ARE INSTALLED IN POSITION WHILE FINISHING THE TREATMENT.
- (e) ENSURE THAT THE FINAL FINISHED SURFACE IS PROVIDED AS REQUIRED.
- (f) ENSURE PROPER CURING FOR REQUIRED PERIOD.
- (g) CHECK THE EFICACY OF THE TREATMENT BY ARTIFICIAL FLOODING.
- (h) IF DEFECTS NOTICED DURING (g) ABOVE GET RECTIFICATION DONE.
- (i) ENSURE THAT DURING LAYING FURTHER FINAL FINISHING ON TOP, THE WATER-PROOFING IS NOT DAMAGED.
- (j) OBTAIN THE GURANTEE IF PROMISED, FROM WATER-PROOFING CONTRACTOR.

chklstf

SESSION - IV

TRAINING AND CONTINUED EDUCATION.

Any form of human activity when reaches the advanced stage of imparting specialised services needs training. It may be formal, informal or knowledge passed from generation to generation as evident in case of different trades viz. Carpentry, Masonary, Tiling, Glazing, Concreting etc. Most of the skilled and semi-skilled workers derive their knowledge and experience on job starting from lower position. But it is not the case with Site Supervisor who is supposed to over-see these activities.

Most of the conflict of approach on site arises out of unbridgable gap that exists between the persons having formal technical training and the skilled workers. Hence mere technical knowledge needs to be incorporated or amalgamated with proper capacity of handling human behaviour and problems in Site Supervisor to enable him to successfully accomplish his task. He may be representing owner or architect, shall be well versed tactful handling of workers, infusing work culture and proper methodology.

On the other side, he is exposed to the barrage of instructions from consultants and has to many times pamper their ego. Discrepancies and mistakes of consultants are seldom acknowledged by them and this requires a diplomatic handling. Taking the safe, sound and right path involves many times conflicting situation requires proper skill and experience backed by appropriate training.

Based on above considerations, but not diluting the technical requirements necessary for quality control, the handy programmes short and long duration has to be tailored properly. Naturally the programmes has to be dynamic and responsive to field requirements encompassing vast variety, with necessary flexibility.

Secondly, major thrust in building construction is concentrated on structural works and finishing works, but quality control on services is lacking. At present due to the work being handled by nominated agencies statutorilly recognised which many times behave as previledged contractors. The exposure to services requirement and its co-ordination with civil work will have to be important ingredient of the training programme.

Based on the above considerations, the training programmes will be tailored made to suit the need of the industry and will be conducted regularly by professional institutions like IE (I), PEATA, ICI, and frequency and duration will depend on response available.

Broadly speaking training programme will have three types :

(1) General Training consisting of

- (i) Lectures - on Municipal bye-laws, reporting, safety, various specifications and work methods etc.
- (ii) Demonstrations - Testing, do & don'ts, etc.
- (iii) Field training - checking controlling the quality, etc.

(2) Refresher :

New products & Technologies will be discussed.

(3) Specilised Courses :

Inter-disciplinary co-ordination, precast methods & products, etc.